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TREATISE

ON THE

PUERPERAL FEVER.

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A

TREATISE

ON THE

PUERPERAL FEVER,

ILLUSTRATED BY

CASES,

WHICH OCCURRED IN

LEEDS AND ITS VICINITY,

IN THE YEARS 1809——1812:

By WILLIAM HEY, Jun.

MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN LONDON, AND SURGEON OF THE GENERAL INFIRMARY, AND OF THE HOUSE OF RECOVERY, AT LEEDS.

Nec tamen etiam si quid novi vel serò invenissem, præcipere in posterum puderet.

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1815.

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WILLIAM HEY, ESQ. F.R.S.

MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN LONDON;

HONORARY MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND,

OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH,

AND OF THE
LITERARY AND PHILOSOPHICAL SOCIETY OF MANCHESTER;

AND LATE SENIOR SURGEON OF THE GENERAL INFIRMARY AT LEEDS:

THIS TREATISE IS DEDICATED,

AS A TRIBUTE OF GRATITUDE TO A MEDICAL PRECEPTOR,

OF FRIENDSHIP TO A KIND COADJUTOR IN PRACTICE,

AND OF FILIAL REGARD TO A FATHER,

BY

HIS AFFECTIONATE SON,

THE AUTHOR.

PREFACE.

THERE is, perhaps, no disease of equal importance with the Puerperal Fever, respecting which such contrariety of opinion has prevailed amongst medical writers and practitioners. This disease is mentioned in the earliest records of medicine, and has been noticed by many of the most celebrated authors from the time of HIPPOCRATES to the present day. Yet, though they are generally agreed as to the leading symptoms and the extreme danger of this dreadful malady, their descriptions of it are, nevertheless, in many respects dissimilar; and they are still more at variance in their sentiments of its true nature, and of the most appropriate method of treatment.*

As to the danger and mortality of the disease, it is asserted by one author, that the Puerperal Fever "occa-"sions the death of much the greater part of those "women, who die in child-bed.†" Another remarks, that "there is not, perhaps, any malady to which the "human body is subject, where powerful remedies of "every kind have been tried with more diligence and

* "Scarce any two authors have described this fever alike." WHITE on the Management of Pregnant and Lying-in Women, p. 24.

"With regard to the method of cure, no disease has more divided "the sentiments of physicians, than the Puerperal Fever." MANNING on Female Diseases, quoted from HULME's Treatise, p. 145.

† DENMAN's Introd. to Midwifery, Vol. 2. p. 456. Ed. 4.

"less success." Again, he says, "Those (the methods "of cure) hitherto adopted have generally failed.*"

"A professor of midwifery, in the university of Edin- "burgh, declared the Puerperal Fever to be incurable; "and another professor, in the same university, con- "cludes his observations upon it with the following "words": 'From the above cases, and from all that has 'been yet written upon this subject, we may with great 'truth conclude, that we know little of the nature and 'still less of the cure of the Puerperal Fever.†'

Such are the sentiments of these eminent practitioners respecting the Puerperal Fever; and to their testimonies might be added many others of a similar nature. Their assertions might also be corroborated by facts equally strong and melancholy.

In some accounts given of this fever, all who were seized with it are stated to have died, and in others, a very large proportion; so that it has been considered as "a fair computation," that "three-fourths of the "women who have been attacked with this disease, have "fallen sacrifices to it.‡"

In such a state of alarm for the consequences of this destructive malady, and of doubt and perplexity as to its true nature, it could scarcely fail to excite the interest of the medical world, to learn that a remedy had been discovered, which seemed almost to claim the merit of infallibility.

* Leake on the Child-bed Fever. Introd. p. 7, 8.

† Gordon on the Puerperal Fever, Preface, p. vi.

‡ Thomas's Modern Practice of Physic, p. 626. Ed. 3.

In the year 1782, the Report of a Memoir, read before the Royal Medical Society of Paris, which was published there under the authority of Government, and translated into English by Dr. Whitehead in the following year, informs us, "that the late M. Doulcet "found a method of curing this disease, extremely "simple, and which has never yet failed of success since "it has been employed; although before this method "was made use of, the disease had always been fatal to "every woman who had been attacked with it in that "hospital (the Hotel-Dieu).*" We are further informed, that "the success was in every instance the same; "so that in four months, during which this epidemic "disease raged with fury, near two hundred women were "saved to society, excepting five or six, who all refused" to use the remedy, "and were victims to their own "obstinacy.†"

Another physician, in London, confirms the efficacy of this method of cure from his own experience, in a treatise which he published in the year 1787, five years after the publication of M. Doulcet's discovery. He tells us that his directions, which, it appears, have M. Doulcet's plan for their basis, though differing in some respects from it, "have hitherto in real practice been "justified by an uninterrupted success.‡" "And that "he can with truth advance, that he has himself never "lost a patient as yet in this disease, though he has had "no inconsiderable number under his care.§"

* Whitehead's Translation of M. Doulcet's Memoir, p. 2. † Ib. p. 10.
‡ Walsh on the Puerperal Fever, Preface, p. iv. § Ib. p. v.

Whether this mode of treatment has not been fairly tried, or to whatever other cause its failure or disuse may be attributed; we are disappointed to find, that it does not seem to have answered the expectation which its high pretensions might reasonably justify. For a teacher of midwifery in London, in describing an epidemic Puerperal Fever which first made its appearance soon after the publication last mentioned, seems to have found, "that those medical men, whose age and expe-"rience were great in the diseases of puerperal women, "were staggered at the fatality, and embarrassed and "perplexed in the treatment of the disease &c.*"

I have ventured to express a doubt, towards the close of this work,† whether the success attributed to the plan of M. DOULCET, may not have been unintentionally overrated; and have there offered my reason for this supposition.

Towards the end of the Year 1789, the Puerperal Fever appeared as an epidemic at Aberdeen, and continued to prevail there till the beginning of the year 1792.

DR. GORDON published his admirable treatise on this epidemic, in the year 1795; in which he points out, with much perspicuity and force of reason, the nature, seat, and cure of the disease, giving the most convincing argument of the justness of his opinions in the extraordinary success of his practice.

Yet, with the contrariety ever attending this obscure distemper, his opinion of its nature, and his method of

* CLARKE's Practical Essays, p. 111. † See page 200.

cure, are diametrically opposite to the sentiments and practice of those authors whose publications had most recently preceded his own.

I have not the presumption to suppose, that any observations of mine will have weight enough to settle a dispute, which has engaged the pens of so many able writers; but should this attempt to elucidate a subject which has already undergone so much discussion, be thought to require an apology, I would avail myself of the sanction of the last named author; who, having lamented the mortality and ill success attending the treatment of the Puerperal Fever, adds, "In this state "of matters, it is certainly the duty of every practitioner, "who has been successful in treating the disease, to "publish his observations.*"

I am persuaded that there is no better way of arriving at truth in difficult and obscure cases, than by diligently observing the *juvantia* and *lædentia*—what does good, and what does harm; and assistance of this kind can surely in no case be more necessary, than in the disease now under consideration, respecting which, opinions entitled to the greatest regard are in direct opposition to each other. Perhaps there is some truth in Dr. Gordon's remark, "That if practitioners had observed more "and reasoned less, there would have been little dispute, "either about the nature or seat of this disease.†"

It was by observing the effect of different remedies,

* Gordon on the Puerperal Fever, Preface, p. vi.

† Ibidem, p. 50.

that I first began the successful practice hereafter described, in opposition to what then appeared to be the prevailing sentiment respecting the Puerperal Fever; and taking the hint from partial success, I determined fully to adopt Dr. Gordon's plan of treatment, till experience should teach me the necessity of deviating from it.

Though I have little that is new, to add to this plan; yet, since the practice in Puerperal Fever is far from being settled, whatever may throw additional light on the complaint, or on any treatment that has been adopted for its cure, cannot be thought superfluous.

Should my success have any share in confirming Dr. Gordon's practice, and making his excellent treatise more generally attended to, I shall think that I have rendered the medical profession and the female sex a great service. If I have found any necessity for deviating from his plan, it is chiefly by extending it in the same direction. Whether I have improved upon it, or not, must be left to the judgment of others. If, on any occasion, I have differed in opinion from him, it has been in matters of inferior consideration.

It is with no little reluctance and diffidence, that, in the following pages, I have noticed with so much freedom the opinions of many authors of great and deserved celebrity. But, having faithfully related the bad, as well as the good success of my own practice, it seemed also essential to the usefulness of the work, and to the elucidation of the controverted subject of which it treats, to

examine some of those various opinions which, from their contrariety, have tended to perplex the practitioner, and to involve the subject in greater obscurity. I trust that, in attempting this invidious task, I have not exceeded the bounds of liberal and candid discussion.

It was not till the following Treatise was prepared for the press, that I had the opportunity of seeing Dr. Armstrong's valuable work on the same subject. It is scarcely necessary to inform the reader, what he may observe from the dates of the cases, that the Puerperal Fever of Leeds was prior to that of Sunderland. This Treatise has, indeed, been delayed much longer than at first was intended. It had just been begun, at the end of the year 1812, when an alarming complaint in the chest obliged me, for nearly twelve months, to lay aside my design. It was resumed at a distance from home, under the disadvantage of an absence from books, and other sources of necessary information. So that on my return to Leeds in September 1814, though the work was then written, yet much remained to be done, and that amidst many avocations, increased by my long absence. Thus much in explanation of the delay. I will only add, that if there should be found any coincidence in my sentiments and practice with those of Dr.

Armstrong, so far our respective works will stand as independent testimonies of a similar view, as to the nature and treatment of a very important disease.

POSTSCRIPT.

WHILE this work was in the press, my Father was favoured with a letter from Dr. Brenan of Dublin, accompanied by a present of his tracts on the Puerperal Fever, for the cure of which he recommends the internal and external use of spirit of turpentine. This remedy has, indeed, been serviceable to horses labouring under the disease called the colic, and has been administered with safety to the human subject in the case of tænia &c.; but of its use in the Puerperal Fever, or any other inflammatory disease, I can give no opinion, having never seen it tried in such cases. I sincerely wish that Dr. Brenan may find it to answer his most sanguine expectations. I should not, however, think myself justified in substituting a method of treatment which has not yet been sanctioned by extensive experience, for one, which, when properly used, I have hitherto found infallible.

March 1*st*. 1815.

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A

TREATISE

ON THE

PUERPERAL FEVER.

CHAPTER I.

INTRODUCTION.

CHAP. I. Introd.

THE Puerperal Fever, in its most simple state, may be defined to be, Fever in Child-bed, accompanied with pain which has no complete intermission, and extreme soreness, in the abdomen.

These may properly be called pathognomonic symptoms, because they are inseparable from it; and accordingly we find, that, however authors may differ in their ideas of the nature of the fever, or however different the forms of it which they describe, these symptoms invariably make a part of the description.

There are, besides, a great variety of other symptoms, which are more or less commonly joined with those before mentioned; and which, being variously modified, according to the cause of the attack, the constitution of the patient, the state of the air, the prevailing epidemics, &c., produce a great diversity in the appearance of the disease.

Hence has arisen that difference of opinion, which has always prevailed, respecting its true nature.

While some authors have considered the disease to be purely inflammatory, others have supposed it to be a modification of the typhus or jail-fever; and others, again, have adopted a middle course, and believed it to be inflammatory in its commencement, but to have a strong and rapid tendency to putrescence in its progress.

The opinions of its causes have been still more numerous. It has been thought to arise from obstruction of the lochia, from translation of the milk, from injury received in labour, from taking cold, from rising too early, from foulness in the primæ viæ, from absorption of putrid lochia, from foul air, from contagion, &c.

So various, indeed, have been the causes to which this fever has been attributed; so different and opposite the sentiments of practitioners respecting its nature, seat, and cure; that we can scarcely avoid the conclusion, that different diseases have been treated of under the same name.

One of the latest writers on the diseases of lying-in women, who must have had considerable opportunities of acquiring information respecting the different kinds of puerperal disease, impressed with this view of the subject, and desirous to remove the confusion in which it has been involved, as well as to "reconcile these diversities of sentiment and practice,*" has arranged the result of his experience and inquiries in the following manner.

Those inflammatory and febrile diseases which succeed labour, and which have usually gone under the general denomination of Puerperal Fever, he divides into four kinds; viz. "Inflam-" mation of the Uterus and Ovaria;" "Inflam-" mation of the Peritonæum;" "Inflammation " of the Uterus, Ovaria, and Fallopian Tubes, " or of the Peritonæum, connected with inflam-

* Dr. JOHN CLARKE's Practical Essays, p. 58, ed. 1793.

CHAP. I. Introd.

" matory affection of the system;" And, " The " Low Fever of Child-bed, connected with " affection of the Abdomen, which is sometimes " epidemic."*

It is not my intention, in this place, to examine how far this division is founded in nature; but it is evident from the author's account of these different affections, that a nice discrimination will often be requisite, in order to determine to which class each case belongs. Of the two former diseases he observes, " that they are " often mixed together; insomuch, that the " mixed case is that which we most commonly " meet with.†" It is of the less consequence, however, to make a distinction here; since the diseases are allowed to be so similar in their nature, that he can point out no difference in the manner of treating them. Yet, from the following caution, it would seem, that there is some danger of confounding them with a disease, which is supposed to be essentially different from them. " Before I close this part of my " subject," he says, " I must beg leave to caution " those of my readers, whose experience may " have been short, to be very careful in distinguish-

* CLARKE'S Practical Essays. † Ibid. p. 92.

"ing these diseases from cases of fever conse-
"quent to labour, occurring in debilitated con-
"stitutions, in large towns, and in hospitals,
"more particularly when there is any disposition
"to epidemic complaints, which have a low ten-
"dency.*"

The third class, viz. "Cases of inflammation of "the Uterus, Ovaria, and Fallopian Tubes, or of "the Peritonæum, connected with inflammatory "affection of the system," seems to form an intermediate step between the two former diseases and the last. For the treatment is described as nearly similar to that of the former; but greater caution is recommended in the application of those remedies, which have a tendency to reduce the strength. Bleeding, which is entirely forbidden in the low fever of child-bed, is to be used here, in a very sparing and limited manner.

The last disease in this division, viz. "The "Low Fever of Child-bed, connected with affec-"tion of the abdomen, which is sometimes "epidemic," "notwithstanding that in some "respects it is analogous to the diseases de-"scribed in the former sections," is yet considered as essentially different from them "in the nature

*CLARKE's Practical Essays, p. 92.

CHAP. I. Introd.

"of its attack, in its general progress, and in the "manner of its termination.*" In conformity with this idea, the method of treatment is quite opposite to that of the former diseases.

In this case, which we might expect to be easily distinguishable from the former, we are not left without embarrassing varieties. It is allowed, that an occasional cause "may produce in- "flammation of the uterus or peritonæum, which, "existing along with a low fever, may sometimes "make rather a mixed case,†" in which the method of treatment is stated to require unusual "nicety of discrimination, since the very life of "the woman hangs upon the decision.‡"

Dr. Thomas, of Salisbury, in his "Modern Practice of Physic,§" has taken nearly a similar view of this subject; and since he informs us in his preface, that "again have the latest writers "of celebrity been consulted, and their opinions "been noticed," we may fairly conclude, that the distinctions which he and Dr. Clarke have made, are consonant with the opinions of the most celebrated practitioners of the present day.

*Clarke's Essays, p. 112. †Ibidem, p. 169.
‡Ibidem, p. 170. §Edition 3rd. 1810.

DR. THOMAS does, indeed, notice the epidemic of Aberdeen, and the success of DR. GORDON in the treatment of it; yet it would seem as though he considered the disease, in this instance, as an unusual variety—an anomaly in the history of Puerperal Fever; for he does not give any intimation, that his own views of the nature and cure of Puerperal Fever were affected by the account; nor hint a suspicion, that the prevailing opinions respecting it might possibly be erroneous: neither does he attempt to account for the extraordinary success of DR. GORDON by a method of cure, so opposite to that which *he* recommends. On the contrary, he still maintains that "it is certain, that it" (the Puerperal Fever) "has generally a strong tendency to the "typhoid type,*" and that "there is still so ma- "terial a difference" between the Puerperal Fever and inflammation of the uterus, peritonæum, or omentum, "in the nature of its attack, its general "progress, the manner of its termination, and "the treatment it requires, that there seems to "exist an essential distinction between them.†" He further adds, with respect to the treatment,

*Modern Practice of Physic, p. 624. †Ibidem, p. 623.

CHAP. I. Introd.

that, in a strong plethoric habit, after laborious or forcible delivery, where no epidemic constitution of the atmosphere to low fever prevails, and there are evident signs of inflammation, we may venture to recommend early bleeding; "*but* "*under no other circumstances can it ever be ad-* "*visable.*†"

I have particularly noticed the distinctions laid down by these authors; because it is obvious, that whatever may enable the practitioner to discriminate in cases of alarming and obscure disorders, must be highly valuable; and, in the present instance, whatever may tend to establish these distinctions, if they are well founded, or to controvert them if they are otherwise, must be of the utmost importance; since it will essentially affect the practice of the physician, and the safety of the patient.

In the following account of the Puerperal Epidemic of Leeds and its neighbourhood, it is my wish to write entirely as a practical man. I have no theory of my own to establish; and I trust, that my aim is sincerely to search after truth; and to endeavour to throw some further

* Modern Practice of Physic, p. 626.

light on a subject, upon which, "though much has "been written by men of the first abilities and "reputation for medical knowledge," it must be confessed, that much obscurity still remains.

With these views, my *principal* object in noticing the distinctions above mentioned, is to introduce a remark, or rather the statement of a fact, which, if there is any close analogy between the Puerperal Fever, as it has lately appeared in Leeds, and as it is described by authors, must be of some importance in its practical consequences.

When the Puerperal Fever which I purpose to describe, first made its appearance in Leeds, I was so far from deriving any advantage from these distinctions, in real practice; that, on the contrary, I am persuaded, an attention to them had no inconsiderable share in restraining me from adopting that method of treatment, which afterwards proved so eminently successful.

To explain myself further: for some time after the commencement of this dreadful malady, it proved fatal in every case that came within my knowledge; and though a few patients afterwards recovered under the treatment which my father and I had formerly found successful in the

CHAP. I. Introd.

Puerperal Fever; yet the success was very small, till the method hereafter described was fully adopted.

Alarmed by the extreme rapidity with which the disease ran through its course, and by its almost constant fatality, unlike any thing which had ever been known in Leeds, I paid particular attention to the description given of Puerperal Fever, as distinguished from inflammation of the uterus and peritonæum. From a diligent consideration of the symptoms and circumstances of the disorder, I could have no doubt, that it approached the nearest to that which is described by DR. CLARKE, as "the Low Fever of Child-bed, "connected with affection of the abdomen, which "is sometimes epidemic:" and by others, as the Puerperal Fever, which has "a strong tendency to the typhoid type." For although it differed from them in some respects; yet it resembled them in its general character, and differed far more widely from simple inflammation of the uterus and peritonæum.

I soon found by experience, that purging gave great relief, though it did not cure; but I was fearful of carrying it to the extent, which I afterwards found necessary; and still more so of em-

ploying the lancet, in a disease attended by such sudden and early sinking, and in which both these remedies had been so strongly condemned.

It has just been remarked, that the disease in question was very unlike any which had ever been known in Leeds. Wherein then did the difference between this and the more common forms of Puerperal Fever consist; and what was its distinguishing characteristic? I wish it may be understood, that I speak now only of what has occurred in my own practice, without any reference to the accounts given of the disease by authors; and with this proviso, I must say, that I know no *essential* difference, but the greater severity of the disease; no distinguishing character, but that of its being *epidemic*.—These are the only distinctions which would have been of any real value to me in practice; for I found that the remedies which were beneficial, and generally availing, in the cure of the incidental or sporadic Puerperal Fever, though proper in their kind, and useful to a certain extent in alleviating symptoms, were totally inadequate to the cure of this severe Epidemic.

Dr. Kirkland seems to suppose, that the genuine Puerperal Fever is never epidemic;

CHAP. 1. Introd.

"that the Puerperal Fever, which has been ob-
"served in hospitals, is owing to some cause
"peculiar to hospitals;*" and that, under such circumstances, it is to be considered, as an adventitious disease happening to lying-in women.† It must be allowed, that the Puerperal Fever has occurred, as an epidemic, most frequently in hospitals; but if any proof were wanting, that it may be epidemical, independently of any cause peculiar to hospitals, that proof is abundantly supplied by the instances of this fever, which have occurred at Aberdeen and Leeds; where it was confined to no situation, rank, or circumstances; affecting alike the rich and the poor, the young and the old, the inhabitants of the town and of the country.

That the disease is most severe, when it prevails epidemically, and in proportion to its assuming that character, has been particularly noticed by DR. LEAKE. His words are, "It will al-
"ways be found most fatal, when most epidemi-
"cal, that is, during a distemperature of the air;

*Treatise on Child-bed Fevers, p. 73.

† "Epidemic, or hospital fevers, or fevers which take their "rise from diseases foreign to the puerperal state, are only ad-"ventitious diseases happening to lying-in women." Ib, p. 90.

"and least of all so, when it happens in healthy seasons, from accidental causes only.*" The two first cases related by DR. LEAKE were successfully treated by him; but he candidly observes, that these cases occurred before the epidemic season. And we find that he was not equally successful afterwards; for of nineteen women, who had the disease in the epidemic season, thirteen died.

I am persuaded, that this circumstance is deserving of the greatest attention; and that whoever attempts to cure an epidemic Puerperal Fever by such means as are commonly sufficient for the sporadic disease, will find himself greatly disappointed in the result. And further, I believe, that we may apply what DR. KIRKLAND says of Puerperal Fever in general, with peculiar propriety to the epidemic form of the disease, namely, that "we should be active in all our "proceedings, for there is no disease in which "the loss of time is of worse consequence.†"

It is my intention, in the following pages, to relate in order what has occurred in my own practice; illustrating the subject by cases, and

* Observations on the Child-bed Fever, p. 101.

† Treatise on Child-bed Fevers, p. 116.

CHAP. I. Introd.

making, as I proceed, such observations as the cases may suggest. In conclusion, I shall add such general remarks on Puerperal Fever, as result from the whole; and take some notice of what has been written on the subject by others.

It cannot be pleasant to any one to record his bad success; but without it, a fair estimate of the comparative merits of different remedies cannot be formed. Dr. Gordon has given us the name, and place of abode, of all the patients whom he attended. This is certainly very satisfactory; yet, for obvious reasons, his example cannot, in all circumstances, be followed. It is however, much to be regretted, that, in a disorder which has so much divided the sentiments of practitioners, authors should not have put it in the power of their readers, to form a correct judgment of the efficacy of the treatment which they recommend, by enumerating the instances of its failure and success.

CHAPTER II.

HISTORY AND SYMPTOMS OF THE DISEASE.

HISTORY.

FOR some years past the Puerperal Fever has prevailed epidemically in different parts of Yorkshire.

It appeared first at Barnsley, twenty miles south of Leeds, where it was very prevalent and fatal. It began there early in the Year 1808, nearly two years before it became general in Leeds.

About two years before the fever which I am now to describe, made its appearance, a Puerperal Fever was epidemic in this town, which was similar in its nature to that now under consideration; but it was more partial in its extent, affecting only one district of the town, and being confined chiefly to the poor. It was also less severe in its attack, and in its result less fatal. Its prevalence likewise was of much shorter duration.

CHAP. II. History.

The disease which is the subject of the following pages, commenced in the month of November 1809, and continued, in different degrees of severity, and with some considerable intermissions till Christmas, 1812; from which time, being myself confined by an indisposition which lasted throughout the year 1813, I saw no more of it.

During the period of its continuance, it was not confined to the town and immediate vicinity of Leeds; but was more or less frequent both in the country, and in towns at some distance. So that its cause and the means of its propagation, whatever they might be, were not peculiar to one place, nor did they seem to depend upon local situation or circumstances.

Though the Puerperal Fever has been described under many varieties, yet its leading features must be allowed to have a great similarity in most, if not all, of the descriptions given of it.—But it none that I have seen, is the resemblance more striking, than in the epidemics of Aberdeen and Leeds; insomuch, that were I, in many instances, to adopt the very words of DR. GORDON, I could not more aptly describe what came under my own observation.

"The Puerperal Fever, according to the ac-

" count given of it by authors, is more frequent " and fatal in large towns, and in hospitals, than " in the country, and private practice. But that " under consideration was not confined to the " town of" Leeds, " but extended to the suburbs " and contiguous country, where it proved as " fatal as in the heart of the" town. " It was " not peculiar to any particular constitution, or " temperament, but promiscuously seized women " of all constitutions and temperaments; for the " strong and the weak, the robust and the delicate, " the old and the young, the married and the " single, those who had easy, and those who had " difficult labours, were all equally and indiscri- " minately affected. *"

In the following circumstance, however, they differed; viz. that the Puerperal Fever of Leeds did not " prevail principally among the lower " classes of women; †" for, in the beginning, it affected chiefly those in the higher situations in life; and, in its progress, they were equally liable to its attack; though from the greater proportion of persons in the middle and lower ranks of life, such constituted the greater number of persons affected on the whole.

* GORDON on the Puerperal Fever, p. 2. † Ibidem.

Many fell victims to the disorder, whose situation, circumstances, and precautions might have been expected to exempt them from it, if any care could have availed to that end.

It has been observed by Dr. Gordon and others, that no connection could be traced between this disease and the sensible qualities of the air: and the fact, that, in this instance, it prevailed equally in cold and hot weather, in wet and dry seasons, in winter and summer, seems to confirm the observation. Yet, I think, it cannot be doubted, that there is something in the constitution of the atmosphere, though not discoverable by its sensible qualities, which either gives rise to such epidemics, or favours their propagation. Although Dr. Gordon, in one place, says that the cause of the Puerperal Fever of which he treats, was "altogether unconnected with a noxious constitution of the atmosphere;*" yet he elsewhere speaks of "the commencement" and "the cessation of the epidemic constitution;†" which latter expression I am unable to understand, but of something in the constitution of the atmosphere at least favourable to the disease, if not, in some sense, a cause of it.

* Treatise on the Puerperal Fever, p. 66. † Ibid. p. 114.

I know not that any thing in the state of the weather, either previous to the commencement of the Epidemic at Leeds, or at the time of its appearance, can be supposed to have conduced to its rise; but it may be proper to mention, that the preceding winter had been remarkable for great falls of snow, which had occasioned unusual floods. The whole months of August and September had been unsettled weather; and in the month of November (when the disease first appeared), of December, and the early part of January, the weather was mild and open, attended occasionally with thick mists, snow, and a good deal of rain.*

Much stress has been laid upon attention to the prevailing epidemics, as likely to throw light on the nature and tendency of the Puerperal Fever; and consequently to afford an indication of the kind of remedies to be employed in its treatment. In towns so large as Leeds, there are never wanting cases of infectious fevers; but, at the time alluded to, no disease was so prevalent as to deserve the name of an epidemic, except erysi-

* This short account of the weather has some coincidence with DR. CLARKE's observations. See Practical Essays, p. 114.

pelatous inflammations, which prevailed during the whole period of the Puerperal Fever, and in many cases were of a very malignant kind; insomuch, that I do not recollect ever to have seen worse cases of erysipelas than at that time.

This circumstance is the more worthy of notice, because it has been observed in other instances of Puerperal Fever. DR. GORDON remarks, that "these two epidemics began in "Aberdeen at the same time, and afterwards "kept pace together; they both arrived at their "*acmé* together, and they both ceased at the same "time.*"

And DR. CLARKE in his description of the Low Fever of Child-bed, observes, that "if they" (inflammatory diseases) "occurred at all, they "were principally of the erysipelatous kind. †"

The most common form of this epidemic, as I have already remarked, answered very nearly to the description given by DR. GORDON; but it was subject to greater varieties, both in its manner of attack, its symptoms, and the period of its termination, than the epidemic of Aberdeen.

Some circumstances which will be noticed

* Treatise on the Puerperal Fever, p. 56.

† CLARKE's Essays, p. 115.

more particularly hereafter, induce me to believe, that it was also an epidemic of a more malignant character; by which I mean, that it was more severe in degree, more rapid in its progress, and required more powerful remedies for its cure.

It is somewhat remarkable, that I have scarcely known an instance, in my own practice, of this disease coming on after preternatural delivery, or even a particularly hard labour. I do not mean to imply, that such cases were more exempt from it than others, but so it has happened; and the fact shews, that it was independent of any thing untoward in the labour. It has, on the contrary, most frequently occurred, within the compass of my experience, after the most easy and natural labours.

SYMPTOMS.

Symptoms.

Till the moment of the attack, which usually took place about forty-eight hours from the time of delivery, the patient was perfectly well; when she was seized with a rigor, or shivering fit, which was succeeded by a great degree of heat often terminating in profuse perspiration, and severe pain in the abdomen. The pain had no complete intermission, sometimes no remission;

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Symptoms.

but it was commonly much aggravated at intervals, so as to resemble the throes of labour.* It always left the abdomen extremely sore in the remissions, so that pressure or motion occasioned very great uneasiness.

The pulse became rapid very early in the disease, and was sometimes strong and full in the beginning; but was more frequently weak, or soon lost the strength which at first it possessed. Within a few hours of the attack, it was generally found to beat from 110 to 150 strokes in a minute.

The head was often affected with pain; but more commonly with giddiness and a sense of confusion; sometimes accompanied with ringing of the ears.

After the heat which succeeded to the shivering, had gone off, the face was usually pallid, and the countenance expressed much anxiety. The degree of heat was various: the skin was generally hot and dry; but sometimes it was moist, or covered with profuse perspiration; at others,

* In one case of a poor woman, the neighbours were so fully persuaded that a second child was left in the womb, that they came to request my assistance in the delivery.

it was quite cool and pale. The tongue was white, somewhat furred, and occasionally dry in the middle; but most commonly it was moist, and not affected in any due proportion to the violence of the fever.

If the disease came on before the secretion of milk, that secretion was entirely prevented; if afterwards, it soon disappeared and the breasts became flaccid. The lochia were variously affected: sometimes they suffered no alteration, at others they were diminished or suppressed; but would often appear afresh during the continuance of the disease.

In bad cases, vomiting or a tendency to it often came on early, and was sometimes one of the first symptoms; but, in general, it did not affect the patient till the disease was far advanced. The bowels were easily opened in the beginning of the disease; but if it had subsisted some hours, and had gained much ground, they usually required a long continuance of purgatives, before the constipation was completely overcome. Towards the end of the disease a spontaneous diarrhœa was a common symptom; and the evacuations were like those of the dysentery, except that there was no blood in them. The pains were frequently attended with a motion to stool.

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A degree of fulness in the hypogastric region was often evident from the first attack, and not unfrequently the uterus could easily be perceived, forming a distinct tumour above the pubes. Pressure upon it gave exquisite pain. In about six or eight hours, if the patient was not relieved, the swelling began to extend itself to the whole of the abdomen, which was soon distended to a great size, and the enlargement of the uterus was lost in the general tumefaction. A diminution in the size of that viscus was a very favourable symptom. The soreness and swelling of the abdomen occasioned great shortness of breathing, and obliged the patient to lie constantly on her back. There was always some mitigation of the disease when the breathing became slower, or the patient was able to change her position, and lie upon her side.

If the disorder was not checked, great depression of strength and other appearances of sinking quickly supervened. The pulse was too rapid to be counted; the tongue sometimes, though not usually, became dry and brown, and the teeth were covered with sordes; * the cheeks were flushed; the countenance was wild and expres-

* Indeed, the disease seldom allowed time for these changes.

sive of great distress; and the whole body was covered with a clammy sweat. At this period the violent pain of the abdomen often ceased; but its distention occasioned pains in the back, sides, and chest, sometimes accompanied with spasmodic paroxysms of dyspnœa. The patient became restless, and affected with vomiting, hiccough, delirium, and other symptoms which are usual harbingers of dissolution, though not peculiar to this fever; and the melancholy scene was usually closed in a few days from the commencement of the attack.

This was the most common form and course of the disease, when its violence was not abated by the remedies employed. But there was great variety in its appearances, which often proved a source of embarrassment; and none was so dangerous as when the true character of the disease was concealed under the mildness of its first attack; or when an insidious truce was gained by the use of remedies not sufficiently powerful to effect a cure. And here it will be proper to notice some of the varieties, which occurred either in the mode of its attack, or its concomitant symptoms.

Period of its attack. This took place under

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my own observation at all times from twenty hours after delivery to the completion of six days, and I have heard of its occurring after a week; but, in a large proportion of the cases, the disease made its appearance about, or within the expiration of forty-eight hours. In one case, where the commencement of the disease was not clearly marked, I doubt whether it might not be dated from seven hours after delivery. * In another, it seemed to come on gradually from the time of delivery without any marked period of attack; in this case, the patient had experienced severe pain in the abdomen, for many weeks before labour. † A patient whom I visited in consultation after delivery, had been affected, as her Surgeon informed me, with all the symptoms of Puerperal Fever a few days previous to labour. ‡ He had recourse to bleeding and purging, which relieved the symptoms, and he hoped that the

* See Case xxiv.

† See Case vii. "This disease may be sometimes foreseen "in the time of pregnancy, by an uncommon degree of "fever and unusual uterine pains."—*Denman on the Puerperal Fever*, p. 4. Edition 2.

‡ "There are not wanting instances where it has been evidently formed before delivery."—*Ibidem, p.* 9.

complaint had been cured. She had a good labour, and was pretty well, as I was informed, for some hours afterwards. I saw her in the evening of the day on which she had been delivered; she was then in a state of insensibility, the abdomen being much swelled and very hard. She died within twenty-four hours of her delivery.*

* It may be as proper in this place as in any other, to mention, what, I think, is not unworthy of being recorded, viz. that I have met with two cases of this epidemic after abortion; the one at three months, the other at six. The former was that of a poor woman, who had no assistance or advice, till the distress occasioned by her cries, prompted her neighbours to beg my attendance. From the nature of her pain I was at first induced to suspect, that something remained in the uterus; but, after particular inquiry and examination, I was satisfied that the intire ovum had been expelled some days before. I found her labouring under the symptoms of an advanced state of Puerperal Fever—distention of the abdomen with excruciating pain and great soreness, a pulse at 130, vomiting &c. She died in about twelve hours after I saw her, and before I could repeat my visit.

In the other case, I was under the necessity, on account of a too copious hemorrhage, to separate the placenta with the hand *in utero*; which was done with the greatest care, and without any peculiar difficulty. This was the only case of Puerperal Fever, which occurred in my practice after preter-

It has been observed that the Puerperal Fever is the more dangerous in proportion to the earliness of its attack. I believe this to be true as a general rule, but I have seen many exceptions to it.

Rigor.—Though a shivering fit was most commonly the first symptom of the disease, yet some of the worst cases which I have seen, were throughout unattended with rigor; and, in others equally severe, there was no more than a slight chilliness,* or the rigor did not come on till the disease had subsisted many hours. No doubt, the cases which began with shivering, were in general the most alarming, and the most rapid in their progress; yet, after the true method of cure was established, the severity of the attack was more than counterbalanced by the certainty which this symptom, in

natural or forcible delivery. It was cured by the means which proved successful in other cases, viz. copious bleeding and purging.

* "Sometimes there is no rigor; or, at least, so slight as "not to be attended to by the patient."—"Nor is the violence "of the subsequent disease to be judged of by the degree "of the preceding rigor."—*Hulme on the Puerperal Fever, p.* 3.

conjunction with others, afforded of the nature of the disease. For when the pain came on without rigor, it was more frequently mistaken for the common after-pain; and the loss of time thus occasioned, was of greater importance than any difference in the violence of the attack. I have known a few instances where the pain did not immediately follow the shivering,* or was so slight as not to be noticed by the patient; but such instances were rare. In some cases, the rigor returned several times, even in such as terminated favourably; and the patient was often affected with alternate chilliness and heat, when there was no regular shivering fit.

Pain.—This was a very deceitful symptom; and, when it was not preceded by rigor, occasioned great embarrassment by the irregular manner of its attack; and the consequent difficulty of distinguishing it from after-pains. When the disease commenced with a shivering fit; violent pain and extreme soreness of the abdomen generally accompanied, or immediately succeeded

* In one case, a shivering fit, and the only one which the patient had, seized her about twelve hours before the pain. *See Case* xxi.

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the shivering. But sometimes pain was the first symptom; and then it would often come on by paroxysms, and appear equivocal in its nature; having such long intervals as to induce the hope, that it might not return, or that it might arise from some other cause than inflammation. I have several times known an interval of six or eight hours, or even more, after the first attack of pain.* And though it was much more acute and longer continued, in these cases, than after-pains usually are; yet there were two circumstances, which tended to confound these two affections. The one was; that, during the epidemic season, lying-in women were unusually subject to after-pains, and those of a more violent kind than ordinary; so much so, that, in some few cases, they were not easily distinguishable from a slight attack of Puerperal Fever. The other; that when the pain came on in this irregular manner, the pulse was not immediately affected, though it afterwards became as rapid as when the disease had commenced with rigor. In one or two cases, where the pulse beat no more than between seventy and eighty strokes in a minute for some hours after the first attack

* See Cases x. xvi. xvii.

of pain, it rose thirty or forty in a minute within two hours after the pain returned.

The seat of the pain, in the beginning, was most commonly in the hypogastric region, just above the pubes; sometimes in one side, and in the right and left indiscriminately. It frequently shot into the back, hips, and thighs, and even to the extremities of the toes. The principal seat of complaint was occasionally in the groin, where the round ligament of the womb emerges. In one case, the patient described her pain as confined to the stomach;* it afterwards shot towards the navel, and into the back; and, as the disease advanced, extended to the region of the uterus.

Affection of the head.—The intellectual faculties were seldom disordered. The head was sometimes free from all complaint; but generally it was affected with pain, or, as I have before observed, perhaps more frequently with giddiness and a sense of confusion. This affection now and then, though rarely, produced a slight and temporary wandering of the mind; but the patient, when

* Sometimes "a violent pain will fix across the pit of the stomach."—*Hulme on the Puerperal Fever*, p. 2.

addressed, could always give a rational answer. I have known no instance of real delirium, till the near approach of death; and often the mental faculties were clear to the last.*

The Tongue was never incrusted with the dry brown fur of typhus, except the disease was of long continuance, or had been improperly treated. It was generally moist and soft; and though it was not unfrequently covered with a thick white or brownish fur, yet it was often but little altered from its natural appearance to the last, even in bad cases.

The Blood was almost invariably covered with a thick coat of size, and the crassamentum was remarkably firm. In one case of my own,† and another which my father saw in consultation, the blood was quite in a dissolved state.‡ In the former it consisted entirely of serum and a few

* The ninth case is an exception to what is here said respecting the affection of the sensorium; but that was an extraordinary case, and quite out of the common course.

† Case xi.

‡ "I do not remember ever seeing the blood in a dissolved "state." *Hulme on the Puerperal Fever*, p. 12.

small floating coagula of a loose texture. This blood was taken very soon after the attack of the disease. Some blood which was drawn on the following day, exhibited the usual appearances. In both these cases the patients died; and, in the former, one of the lower extremities became mortified before death.

The Termination of the disease, whether by a favourable crisis, or by death, was very uncertain in its period, as it depended on a variety of circumstances. If the patient was seen within a few hours of the attack, and the proper means were vigorously pursued; the disease was either put a stop to at once, or usually brought to a crisis within twenty-four hours. And, even if the delay was twelve hours, it was generally cured in two or three days; provided the vigour of the treatment was proportioned to the delay, and the consequently increased violence of the disorder. If, by any means, it happened, that the remedies were not, in the beginning, adequate to the urgency of the case; the disease was protracted to five, and from that to fourteen days; though only in one instance that I have known, so long

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as the latter period, and seldom so much as a week.

When the termination was unfavourable, it was sometimes delayed to eight or ten days; and in one case, till six weeks after the attack,* by the use of remedies which alleviated the symptoms, and checked the disorder, though they proved insufficient for its cure. When the disease was not properly treated, or was beyond the reach of art, † it generally proved fatal in two or three days, sometimes in twenty-four hours, and once in less than eighteen from the attack.

* The patient, in this case, was in an advanced stage of phthisis at the time of her delivery. See Case xv.

† In those cases to which I have alluded, where the blood was found in a dissolved state, it is doubtful whether any method of cure would have proved effectual; and perhaps they were the only cases, which might be considered as in their nature incurable, if indeed *they* might be so considered.

CHAPTER III.

CASES AND METHOD OF CURE.

CASES.

IT would be equally tedious and unnecessary, were it in my power, to detail all the cases of Puerperal Fever, which came under my care during the epidemic season. It is my design, in this chapter, to give such an epitome of my practice and experience in the disease, as may serve to illustrate its character, to shew the insufficiency of the means which had been usually recommended for its cure, and to elucidate that method of cure, which proved invariably successful, whenever it was fairly tried.

In prosecuting this design, I may have to regret, that I took no minutes of some very interesting cases; but the principal circumstances of them are deeply impressed upon my mind;

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and it is of the less consequence to detail the minutiæ, because I found, that however varied were the symptoms and mode of attack, the same method of treatment was necessary and successful in all the varieties of the disease.

CASE I. *

The first case which occurred in my practice, was that of a young married lady, who resided in an open and healthy situation at a little distance from the town. She was safely delivered of her first child, after an easy and natural labour, in the evening of the 9th of December, 1809; and remained quite well till the afternoon of the 11th, when she was seized with a rigor. I visited her soon afterwards, and found her in a state of perspiration—pulse at 120, and not full. She had so little pain in the abdomen, that, had I not been minute in my inquiries, she would not have noticed it; pressure on the hypogastric region did not excite much uneasiness.

Though the slight degree of pain in this case might have tended, under other circumstances, to

* This case being given from memory, is deficient in the detail of symptoms.

mislead my judgment, I was not unsuspicious of the nature of the disease; my attention to it being particularly excited by the recent death, in child-bed, of two ladies in the suburbs of Leeds.

My Father had long been in the habit of treating cases of Puerperal Fever in a manner somewhat similar to that which DR. DENMAN recommends. After freely evacuating the bowels, and occasionally drawing blood from the arm, he prescribed such a dose of some saline purgative to be taken every morning, as might procure four or five stools in the course of the day; and endeavoured, in order to recruit the strength of the patient, to gain a respite at night by administering an opiate.

By regularly pursuing this plan, I have seen some bad cases of Puerperal Fever cured, in which the pulse was at one hundred and forty, or upwards, and the abdomen considerably enlarged. The same treatment has been alike successful, when, in the course of the disease, a spontaneous diarrhœa has arisen; with this difference only, that a smaller dose of purgative was usually sufficient, in proportion to the length of time, and degree, in which the diarrhœa had subsisted. Though sometimes the diarrhœa, being in a great measure the effect of irritation, was rather

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moderated than increased by a proper dose of some mild purgative.

I saw nothing in the case under consideration to forbid a similar treatment. Venesection did not appear to be indicated; but recourse was had to cooling purgatives, salines, and opiates, as the peculiar circumstances of the case seemed to require.

The treatment was, in the first instance, attended with all the success that I could wish; the uneasiness in the abdomen was removed, the pulse came down between thirty and forty strokes in a minute, and I had the best hopes of my patient's recovery.

But I had not yet learnt the intractable nature of an *epidemic* Puerperal Fever; for this remission, in accordance with a remark of Dr. Gordon, proved "only a respite, during "which, the disease is preparing strength to "return again, in order to renew the con-"flict with redoubled vigour, when it will "not be in the power of art to check its "impetuosity. *"

After a few days, the pain which before had

* Treatise on the Puerperal Fever, p. 86.

been trifling, returned with greater severity, and the abdomen became sore and tumefied. Purgatives and opiates were again employed, and the former with evident and repeated advantage.

My father frequently saw this patient with me; a physician was also requested to assist us with his advice; and, before the termination of the disorder, a second physician was consulted; but all was in vain. Notwithstanding the various checks which the complaint received, every remission was less complete than the preceding, and every fresh attack more severe. The pain and swelling of the abdomen increased; an obstinate diarrhœa came on, in which the stools were sometimes dysenteric, sometimes feculent, but watery, and generally accompanying the paroxysms of pain, which for a time was always diminished by them. The lochia were sometimes nearly suppressed; at others, they appeared afresh. The faculties continued clear, and the tongue moist, till within a short time of the fatal termination of the disease, which happened on the tenth day.

Next to the obstinacy of the disorder, nothing was so remarkable in this case, as the relief pro-

cured by purgatives, which was such as to give us the hope, more than once, of a favourable issue; and the use of them, I doubt not, prolonged the life of the patient many days. For, whenever, through fear of the strength being exhausted, or from an idea that the diarrhœa constituted a part of the disorder, any attempt was made to restrain it, an increase of the pain invariably followed; on the contrary, when the purgatives were repeated, some abatement of pain was the consequence, sometimes even before they operated. Cinchona and cordials were prescribed towards the close of the disease; but without any advantage.

CASE II.

The second case still more clearly than the first, evinced the fatal character of the disease, by its more speedy termination; although, from the late period of its attack, a more fortunate result might have been expected. The patient appeared to be recovering as well as could be wished, till the fifth day after her delivery.

The exhibition of purgatives was attended, as in the former case, with manifest advantage.

The pulse was much reduced in frequency; the enlargement of the abdomen was diminished; and, in short, all the symptoms were greatly alleviated. The disease, however, soon returned with increased violence, and baffled all further attempts to stop its progress. It terminated fatally in four days from the accession of the rigor, which, in this instance, was unusally severe and long continued.

The want of success in these cases, and in all that we heard of in the practice of others, induced us to consider beforehand, what plan of treatment should be adopted on a recurrence of the disease. The nature of the evacuations by stool, which, for the most part, bore a great resemblance to those of dysentery (the appearance of blood excepted); the evident symptoms of abdominal inflammation, which seemed, however, of a kind not likely to bear blood-letting; and the partial success observed in the former cases, determined us to adhere more closely to the plan already mentioned, of purging freely in the day, and procuring repose at night by an opiate. It was

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Case 3.

also judged proper to evacuate the bowels early in every case by a gentle laxative, as the means of prevention. Many weeks did not elapse, before the undesired opportunity occurred, of putting our intention in execution, which was done in the following case.

CASE III.

Mrs. ————, residing in a village about three miles from Leeds, was brought to bed of her second child, at four o'clock in the morning of the 27th of December, 1809. Her labour was easy, and unattended with any particular circumstance. As her bowels were naturally irritable, and as she had had three evacuations on the preceding day, I did not in this case immediately prescribe any laxative. On the following evening I found her free from complaint, and learnt that her bowels had been properly open in the morning. I observed that her cheeks were flushed, but she was not sensible of any increased heat, nor was her pulse at all accelerated.

29th. I was called to visit her, at nine o'clock in the morning, and was informed, that, about eleven the preceding evening, her

after-pains, which before had been very trifling, became more frequent and severe; she grew hot and restless, and complained of pain in her head and back. She had got no sleep in the night, and at four o'clock in the morning, had been attacked with a violent shivering fit, which was succeeded by a great degree of heat. She did not, during the time of my visit, complain of pain in the abdomen; but pressure on the hypogastric region, especially towards the left side excited some uneasiness. The pulse was feeble, and beat at the rate of 146 strokes in a minute. The tongue was white, but not furred. She had had two loose stools in the night, had retched a few times, and still felt a disposition to vomit.

I prescribed a draught with magnes. sulphas and manna, $\overline{aa}$ ℥ss, of which half was to be taken immediately, and the remainder in half an hour. The secretion of milk had not taken place, and I requested that no attempt might be made to suckle the child.

My father accompanied me late in the evening, to visit this patient; when we learnt that the pain in the abdomen had returned soon after my visit in the morning; and found that the abdomen had also become swelled. The opening draught

had not been taken till nearly one o'clock; but had procured five evacuations, of which the three first were copious and feculent, the two last watery. The pain was much diminished by them, and the disposition to vomiting removed. A saline draught was directed to be taken every four hours, and twenty drops of tinct. opii were added to the first.

30th. Soon after taking the night draught the patient became quite easy. She had frequent slumbers till four o'clock, and from that time till seven she slept without interruption. When she awoke, the pain in the abdomen returned like after-pain; and gradually increased in strength and frequency. It was described as coming on at first about thrice in an hour; but she had three pains during my stay, which was not much more than a quarter of an hour. She had no evacuation after taking the opiate, till nearly ten o'clock this morning, when she had a very copious and natural liquid stool, which, as well as the preceding one, contained a living worm. The motion appeared to be excited by a pain; and indeed the pains often produced a motion to stool, though an evacuation did not always follow. The swelling of the abdomen had not increased,

but its sensibility upon pressure extended now to the scrobiculus cordis ; and turning in bed was effected with difficulty. The head was affected with pain and vertigo ; and the pulse had got up to 160. I ordered a repetition of the opening draught ; and directed that the abdomen should be fomented with flannels wrung out of warm water, and afterwards gently rubbed with warm oil.

Half past Eight, p. m. The pains began to abate soon after taking the purging draught, and before its operation ; at the time of my visit they were trifling and distant. Seven or eight stools had been procured in the course of the day, of a natural kind ; some of the last were watery. The soreness of the abdomen was much diminished ; the pulse was reduced to 142, and was also more full. The fomentation and gentle friction with oil had given sensible relief. The opiate and fomentation to be repeated.

31st. The patient had passed a very comfortable night, had slept the greatest part of it, and expressed herself as being particularly refreshed by her sleep. The pains were very slight, and the intervals between them long. The abdomen was much reduced in size, its sen-

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Case 3.

sibility was trifling, and turning in bed gave little uneasiness. The pulse was full and soft, and beat no more than one hundred strokes in a minute. The countenance was good. The tongue rather brown, but not furred. She had had two small stools in the night, and a more copious one in the morning; and, as the bowels were easily acted upon, it was thought advisable to diminish the dose of the purgative. The draught was therefore ordered to be repeated with magnes. sulph. and manna, $\overline{aa}$ ℥iij. The fomentation was also again directed.

Notwithstanding the favourable appearances just described, which afforded a rational prospect of success in the treatment of this case, I was suddenly called, before many hours had elapsed, to witness a return of all the alarming symptoms. I arrived at the house of my patient at two o'clock, *p. m.*, and found her complaining of great pain in the abdomen, which, as before, was aggravated at intervals. The fomentation had been applied soon after my visit in the morning: it felt very comfortable to her, and she fell asleep during its application. She had taken half of the opening draught before any change in the symptoms, and soon afterwards she took the

remainder in consequence of some increase of pain. *

Shortly after the return of the pain, a slight rigor, accompanied with vomiting, had come on, which was succeeded by a great degree of heat. In this state I found the patient, with a pulse at 160, the tongue considerably furred, and the abdomen more swelled. The discharge of lochia had continued in moderate quantity, but pale, from the commencement of the disease. There had been no evacuation from the bowels since morning, though a motion to stool was constantly excited by the pains. I directed that a small draught with magnes. sulph. and manna, $\overline{aa}$ ʒij, should be given at intervals of two or three hours, till stools were procured; and, in case it should be rejected by vomiting, that carbonate of magnesia and lemon-juice should be substituted in small and repeated doses.

Evening. Two of the opening draughts had been taken, which had procured two small natural evacuations by stool; but so painful and difficult had all motion of the body become, that

* The purging draught had been ordered from the first to be taken in two doses with a short space interposed, on account of the tendency to vomiting.

it was necessary to receive them upon cloths. The vomiting had gradually abated, the heat was diminished, and the pain of the abdomen relieved. The tongue was cleaner, and the pulse at 142. I gave another opening draught, and desired that it might be repeated in half an hour. I also ordered a repetition of the fomentation, and directed that an opiate should be taken in case the pain should abate, and the evacuations be too frequent. *

January 1*st*. Three or four copious stools having been procured, half of the anodyne draught was given at twelve o'clock, which was soon rejected from the stomach with a large quantity of liquid. A dose of magnesia with lemon-juice settled upon the stomach, and the remainder of the opiate was given. The patient passed a restless night, with occasional fits of pain, which, however, on the whole had much abated. About eight *a. m.* the vomiting returned with some pain. Pulse 130. She had a small stool or two this morning. Ordered the opening draught to

* When nothing is said respecting the diet, it may be taken for granted, that, in correspondence with the medical treatment, it consisted of light nourishing liquids, as beef-tea, chicken-broth, plain gruel, tea, cocoa, and the like.

be repeated as often as should be necessary to keep the bowels in a lax state.

Evening. Since noon the pain had left the abdomen, and the soreness had much decreased. She complained of pain in her back, sides, and shoulders, and was much distressed by frequent paroxysms of laborious breathing, which appeared to be spasmodic. She felt a desire to sleep, but a ringing of the ears, or, as she expressed it, a noise like somebody singing, seemed to prevent it. She had had four small stools since morning, and had remained free from vomiting. The tongue was much cleaner. Pulse between 130 and 140, but not easy to be counted. She appeared anxious and restless, tossing herself about, and frequently throwing off the bed-clothes. She drank greedily whatever was given to her, and earnestly requested to have some wine, or other cordial.

The fatal issue of the disease was now but too apparent, and there was reason to believe that gangrene had already taken place; nothing therefore remained to be done, but to alleviate symptoms. A little wine was ordered to be given now and then in barley water, an emollient clyster was directed, and a mixture prescribed with camphor and spt. æther. comp.

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2nd. The patient had passed a sleepless night. The abdomen remained free from pain, and was somewhat softer in the hypogastric region; but very hard at the scrobiculus cordis. She still complained of pain in the back, breast, and between the shoulders; her breathing was short, and sometimes laborious. She rambled in her talk; but, when addressed, gave rational answers. The injection had been retained some time, and there had been very little evacuation from the bowels, though now and then there was a motion attended with some pain like griping. The tongue was nearly clean. The pulse about 144. The camphor mixture was directed to be made with decoct. cinchonæ.

I saw my patient no more, but was informed that she died in the evening of this day.

If the disease in this case, is dated from the first accession of pain and fever, the attack was thirty one hours after delivery; if from the rigor, it was thirty six hours; and the fatal termination on the fifth day.

This case, not less than the first, strikingly and equally demonstrates the good effects of purging, and the intractable nature of the epidemic; though in neither of them was the attack so

severe, in respect to pain, as in the generality of cases. The latter especially illustrates a remark of DR. GORDON, who informs us, that he often brought the disease to a remission on the third day, which would readily impose upon a practitioner unacquainted with the epidemic, and induce him to suppose that the danger was over; but the event would convince him of his mistake, if he desisted from further purging.

CASE IV.

The circumstance most worthy of remark in the fourth case, was the early and sudden transition from symptoms of active inflammation to those of debility and sinking. The patient was a robust woman, who was lying in of her first child. She was delivered on Sunday afternoon, at four o'clock; and on the following day, she was directed to take, at intervals, a solution of sulphate of magnesia, as a means of prevention.

At two o'clock on Tuesday morning, she was attacked with the disease, and I was called to visit her about five. The pain was more severe than in any of the former cases; and was accompanied with a full, strong pulse. The sulphate of mag-

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Case 4.

nesia had not operated. I prescribed a purging draught with sulphate of soda and manna, $\overline{aa}$ ℥ss, in two ounces of infusion of senna. I also directed a cathartic injection to assist its operation.

A consultation with a physician took place in the forenoon; when eight or ten leeches, and afterwards a blister, were ordered to be applied to the abdomen.

At three p. m. the pulse had evidently begun to lose its strength, and other symptoms of debility had become manifest. A distention of the abdomen which had previously taken place, now advanced with rapidity; an obstinate vomiting supervened; and the disease finished its career in thirty five hours from its first seizure.

It will not be thought surprizing, by those at least who consider the Puerperal Fever as a modification of typhus, or as having a strong and rapid tendency to it, that the result of this case tended to confirm our fears of having recourse to the lancet.

CASE V.

This case, having run through its course with more rapidity than any which I saw or heard of, may, on that account, be thought of sufficient interest to be recorded.

The subject of it was a lady, who, with the appearance of being delicate, had a sound constitution, and enjoyed good health. Though young, she had born many children, and had usually recovered well from her confinements. She had observed a strict and temperate, though not a lowering regimen, during her pregnancy; and, in the last month, had taken no fermented liquor, nor did she feel the want of it, being in the habit of using no malt liquor, and but little wine. Constant attention had been paid to the state of her bowels. These circumstances, combined with a state of perfect health at the time of labour, and with the situation of her abode, which was on elevated ground at some distance from the town, encouraged me to hope, that none could have a fairer prospect of escaping the prevailing epidemic.

She was safely delivered after an easy labour

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Case 5.

at half past three, *a. m.* on the 26th of January 1810. At nine o'clock on the same morning her pulse was at 72. She had some slight after-pains soon after delivery, but they did not long continue, and she was unusually free from pain throughout the day. It was observed by her friends, that she appeared remarkably well and chearful. She passed a comfortable night, and slept four or five hours.

At five o'clock the following morning, she awoke from sleep with pain in the region of the uterus, accompanied with chilliness,* which was succeeded by heat. The pain came on by paroxysms, like severe after-pain, shooting into the hips; but without any complete intermission. She was at first relieved by lying upon her face, or sitting up and leaning forward so as to relax the muscles of the abdomen.

Having been myself engaged during the night, my father first visited this patient about nine *a. m.* He found already some degree of fulness in the abdomen, and a gentle pressure with the hand on the hypogastric region, manifested an exquisite sensibility in that part. The pulse beat

* See note, p. 28.

120 strokes in a minute. The tongue was nearly clean. A gentle laxative had been prescribed on the preceding day, in order to secure an early evacuation of the bowels, of which two doses had been taken, without producing any operation. My father directed that a purging clyster should be immediately injected, and prescribed a draught with magnes. sulphas and manna, $\overline{aa}$ ℥ ss.

Our previous experience of the fatal character of this epidemic, induced us to wish for a consultation in the earliest stage of the complaint, as well for our own satisfaction, as that of the family; and the physician of the family was immediately called in. He visited the patient before she had taken the purging draught, and finding that, in the short interval which had elapsed, a disposition to vomiting had come on, he directed her to take a fourth part of the draught every fifteen minutes. The first dose was thrown up, but the others were retained.

At one *p. m.* the pulse was rather more than 130.

From the early tumefaction of the abdomen and other symptoms, there was reason to apprehend the utmost danger, and the assistance of

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Case 5.

another physician of great experience was requested.

We met at three, *p. m.* The distention of the abdomen, as well as the frequency of the pulse, had evidently increased since the last visit at one o'clock. The tongue was little altered from its natural appearance, and the pain of the abdomen, though considerable, did not appear to be so vioent, as in some other cases. A warm fomentation which had been applied, procured a little temporary relief. During our visit, the purging draught had a good operation. The following medicines were prescribed.

℞. Decoct. cinchonæ ʒx.
Ammon. carbon. gr. viij. M.
fiat haustus 2dâ quâque horâ sumendus
cum coch. puerile julepi infra præscripti.
℞. Succ. limon. recent. ʒij.
Spt. lavand. comp. gts. xxx. M.

The patient was visited again at eight *p. m.* when she appeared to be in a dying state. The vomiting had returned, and the medicines were rejected from the stomach. Her state being such as to preclude all hope, nothing further was attempted, but to alleviate her distress by administering grateful cordials in small quantities, as she

could take them. She died at half past ten the same evening, her mental faculties remaining clear to the last.

Thus was this melancholy scene closed in forty three hours from the period of delivery, and in little more than seventeen from the commencement of the disease. Yet were the symptoms by no means apparently severe, when compared with the majority of cases; for the cold fit did not amount to shivering, nor was the pain extraordinary—so different was this epidemic in its symptoms and progress, from what might have been expected in the case of a pure phlegmonous inflammation.

CASE VI.

It is not to be expected, that any one case should comprize all the symptoms of a disease; but I would offer the following, as a tolerably fair specimen of the epidemic under consideration, when its progress was not interrupted; and as exhibiting in its circumstances, attack, symptoms, and termination, the most common character and appearance of the disease.

Mrs. W—— was brought to bed of her eighth

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Case 6.

child on the 26th of January 1810, at midnight. Her labour was natural, and rather quick; and was attended with a moderate and proper discharge. She was affected with after-pains for a few hours after delivery, which then left her and she remained easy.

Being desirous to avoid whatever might prove an occasion of irritation to the abdominal viscera, or cause a determination of blood to them, we purposely abstained, in this case, from prescribing any purgative medicine. At five o'clock, *p. m.* on the twenty eighth, she was found to continue perfectly well. Her pulse was then at 72.

29th. I was called to visit her at eight o'clock in the morning, and was at the same time informed, that she had passed a very bad night. After suckling her child for some time, she had been seized about one o'clock (forty-nine hours after delivery) with a shivering fit, accompanied with severe pain in the abdomen; and to the circumstance of giving suck *she* attributed her disorder. The pain had returned with great severity at short intervals throughout the night, leaving, during its remissions, extreme soreness in the abdomen. I found the pulse at 120, the tongue clean, and the abdomen very tender but not en-

larged. The skin was cool, and the face pallid. She complained of thirst. About six o'clock she had experienced some degree of nausea. I ordered a purging clyster to be injected immediately, and a table spoonful of ol. ricini to be taken every two hours, no stool having been procured since the delivery.

Anxious to afford every assistance to my patients, and unwilling that the whole responsibility should rest upon myself, in these truly alarming cases, I immediately requested a consultation. The physician who was first sent for, being from home, another was called in; but some delay was necessarily incurred by this circumstance.

At half past 2, *p. m.* I found the patient somewhat easier, and the pulse reduced to 110, though the oil had not yet operated. She had taken three doses of it. The clyster had not been well managed; but the little that had passed, had brought away some hardened fæces. Another was injected.

Five, p. m. A fourth dose of the oil had been taken at three o'clock; but no stool had been procured, and the last injection was still retained. Some flatus had been expelled *per anum.* An

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Case 6.

enlargement of the abdomen was now evident, but at what period it commenced I cannot exactly say.

The physician who saw the patient in the morning, and now met me in consultation, had just witnessed with me the rapid progress of the disease, as related in the preceding case; and, as that was thought to have a stronger analogy to the Puerperal Fever described by authors as a species of low fever, than to a case of phlegmonous inflammation, it was judged proper to prescribe accordingly.

The purgative already taken was relied upon for evacuating the bowels, as they had not hitherto been found difficult to be acted upon in this fever, if purgatives were given at the commencement of the disease; and the following medicines were prescribed.

℞. Pulv. cinchon. ʒfs. 2dâ quâque horâ sumend. cum coch. iij julep. infra præscr.

℞. Mistur. camphoræ ℥vj.

Liq. ammon. acet. ʒij. M.

I had indeed found nothing so beneficial as purging; but I could say nothing of my success; and therefore could not object to the trial of other and different means.

At 8, *p. m.* the physician who had first been sent for, accompanied us to visit the patient. The swelling of the abdomen had increased, and the pulse was at 120. As but little opportunity had been afforded for the trial of the medicines so lately prescribed, it was agreed that they should be continued. An anodyne fotus composed of twelve ounces of a decoction of poppy-heads, and four of spt. camphoræ, was directed to be applied to the abdomen.

30th. I visited the patient at seven in the morning. She had passed another very bad night. Since twelve o'clock the pain had become much more severe. She had vomited the medicine at four o'clock, in consequence of which it had not been repeated. The tongue was dry. As no evacuation by stool had been procured, another clyster was injected; and, in pursuance of the plan of treatment which had been adopted, I only ordered a draught with decoct. cinchonæ and thirty drops of the tincture, till I should meet the physicians.

At half past 9, *a. m.* we saw her together, and found her in no respect relieved. The vomiting continued, and the pulse was at the rate of 130. A saline mixture was directed to be given in a state of effervescence.

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Case 6.

Two, p. m. Every thing had been rejected almost as soon as taken. The pain of the abdomen had increased, though its distention was not greater, and the cries of the patient were very distressing. Opiates were given both in a liquid and solid form, but withont any advantage.

Eight, p. m. She was becoming delirious, her pulse was not to be felt, and she died the same evening. I do not know the exact time of her death, but it must, I think, have been within forty-eight hours from the attack of the disease.

On a reference to the first and third cases, as well as to others that will follow, it may perhaps be thought, that I am scarcely warranted in stating the foregoing one, as a specimen of the ordinary progress of the disease; at least so far as respects the period of its termination. * But it must be considered, that those cases were clearly brought to a remission about the third day by the use of purgatives; and though the majority of the fatal cases which happened in my own practice, were longer than the sixth in arriving at their termination; yet many terminated as speedily, which I knew by report, or to which I was called in consultation too late to render them any service.

* See Cases iv. and v.

CASE VII.

DR. DENMAN observes that there are instances of Puerperal Fever being formed before delivery. I have mentioned one such instance,* in which the patient was attacked with the symptoms of it a few days before labour, and died within twenty-four hours after her delivery. I have also alluded to the following case, in which there appeared a strong predisposition to the disease during the latter part of pregnancy. †

For nearly three months before her confinement, but more especially during the last five or six weeks, Mrs. K——— suffered much from very unusual pains in the abdomen. She was seldom quite easy; and every day she had one or two paroxysms of severe pain, which continued several hours. They came on at different and uncertain times, and affected chiefly the hypogastric region, but sometimes the epigastric. They were often alleviated by rest in a horizontal posture, though not unfrequently they came on in bed; but when the pain was most subdued, it

* See p. 26. † Ibidem.

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Case 7.

left the abdomen very sore. Laxatives, opiates, and bleeding, were the principal means tried for its relief, but with little success.

February 5th, 1810, in the evening, she was delivered of her first child, after a lingering, though not a severe labour, of three days. During the two first, the pains were slight, but distressing in consequence of the soreness of the abdomen. On the third day, the labour was more natural, and less distressing. I frequently visited her, but only remained by her during the last two hours. On the morning of this day, the pulse was at 72 ; after delivery, at 100.

6th. She had passed the night without much sleep, having had frequent pains resembling after-pains, and, in the intervals, great soreness of the abdomen. The uterus was easily distinguished reaching nearly to the navel, and shewed great tenderness when touched. She had much difficulty in turning herself in bed. She complained of thirst, but had not much heat. The tongue was rather white and furred. Pulse at 80. I forbad every thing heating in diet, and ordered a draught to be taken immediately, containing rhubarb and tartarized soda, of each a dram.

Half past 2. *p. m.* The pain and soreness of

the abdomen had rather increased, and the draught not having operated, a mild clyster was injected. Pulse at 98. I prescribed a saline draught with vin. antimon. gutt. x to be taken every two hours.

Half past 6, *p. m.* A very copious stool, containing much solid fæces, had been procured, and the pain was greatly diminished. Pulse at 108.

Ten, p. m. The pain had become more severe again, shooting into the hips, thighs, and even to the toes; the soreness of the abdomen, and the difficulty of moving had also increased. As she had had but one small additional evacuation, I ordered another draught with magnes. sulphas and manna, $\overline{aa}$ ℥ss, to be taken immediately; and the saline draughts to be afterwards continued with the addition of ten grains of pulv. ipecac. comp. to each of the two first.

7th. She had got no sleep in the night, except half an hour since six o'clock. Two pretty copious stools which she had in the night, were of a dysenteric kind, and contained no fæces. The fur of the tongue was partially cast off in the middle. The state of the abdomen remained throughout the day much the same as before.

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Case 7.

The intention of endeavouring to excite and keep up a gentle diarrhœa, was still pursued; and the opening medicines were varied in their kind and dose, as the symptoms seemed to indicate. About noon a vomiting came on, which was removed before night; and, good evacuations by stool being also procured, the patient felt much relieved. A fresh discharge of lochia took place during the day. The pulse was at 130 both morning and evening. A saline draught with thirty drops of tinct. opii, was ordered to be taken at bed-time; and a saline mixture, at intervals, in a state of effervescence.

8th. She had passed a pretty comfortable night, and had slept a good deal. Pulse at 112. The purgatives to be continued.

Four, p. m. Four or five small natural stools had been procured; and the pain, swelling, and soreness of the abdomen, had much abated. The tongue was clean in the middle. An habitual cough, which seemed, from the period of labour, to aggravate all the other symptoms, still continued very troublesome, and was attended with a large expectoration of frothy phlegm. Pulse at 120.

I was sent for between seven and eight o'clock

in the evening in consequence of a fresh attack of vomiting. She complained of soreness and a sense of fulness in the pudendum, which induced me to examine the parts; when I found a patch of erysipelatous inflammation on each of the *nates*, and an œdematous enlargement of the *labia pudendi*. A fetid ichor was discharged from the vagina. The urine was generally forced away by the cough, which might tend to increase the inflammation. The following medicines were prescribed.

℞. Decoct. cinchon. ℥iss.
Ammon. carbon. gr. v.
Tinct. opii. gutt. x. M. fiat
haustus statim sumendus, et, horis duabus elapsis,
repetendus cum tinct. opii gutt. v.

Half past ten, p. m. The first draught had been taken, and the vomiting had ceased. The pulse was at 134; but it was probably quicker in consequence of the patient having just been moved. The draughts were ordered to be repeated every two hours, with three drops of tinct. opii in each; and a table spoonful of wine to be given now and then. A cooling ointment was prescribed for the inflammation.

9th. She had slept some hours in the night,

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Case 7.

and all the symptoms were relieved. Pulse at 106. Tongue cleaner, and more moist.

Evening. In the afternoon the cough had become more troublesome, and was accompanied with a darting pain in the abdomen, the swelling and hardness of which had increased. The vomiting also had returned. An opening draught had procured two natural loose stools, and the vomiting was relieved, but the pain continued the same. The erysipelas had become more extensive, and the patient was hot and restless. Pulse at 120. Two grains of opium were ordered to be given with an interval of four hours, and the draughts to be continued, with the addition of a tea-spoonful of lemon-juice.

10th. A considerable remission of the symptoms had again taken place in the night. The skin had become cool, and the tongue cleaner. The pulse was soft, and beat no more than an hundred strokes in a minute. This truce, however, was not of long duration; the pain and vomiting soon returned, the distention of the abdomen increased, and before night the pulse got up again to 120.

From this time the disease made a regular

progress without any material remission. Cordials, anti-emetics and opiates, were administered with little effect. The erysipelas continued to spread, and the vomiting, pain, and distention of the abdomen, grew worse and worse; till, on the evening of the twelfth, just seven days from the delivery, death put a final period to them. The tongue had become quite clean, and, if the patient was at all delirious, it was not until very near the fatal close of the disease.

We are informed that, in the Puerperal Fever of Aberdeen, "a very frequent crisis of the disease was by an external erysipelas;*" and that "one of the most favourable symptoms is an "erysipelas on the extremities, or abscesses on "different parts of the body; for such are certain "signs of a salutary crisis.†" I never met with an instance of either critical erysipelas or abscess, in the Epidemic at Leeds; nor do I recollect any case, except the foregoing, in which erysipelas appeared at all. In this it was unfortunately not critical.

In the next case that occurred to me, the

* GORDON on the Puerperal Fever, p. 58. † Ibid. p. 75.

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Case 8.

period of the attack was later than in any which I witnessed either before or after, and it was the first in which the patient recovered.

CASE VIII.

Mrs. N————, residing at a solitary house in the country about three miles from Leeds, was brought to bed in the night of the 7th of February 1810, after a short and easy labour. She was a middle aged woman, and had born many children. On the ninth, I gave her a gentle laxative, which had the desired effect. On the morning of the tenth, I found her sitting up to suckle her child; she seemed unusually well, and so she remained till the end of six days.

14th. I was called up at one o'clock in the morning to visit her, and was informed that, having gone to bed quite well, she was seized at eleven *p. m.* with a shivering fit, which was succeeded by a great degree of heat, and pain in her body (shooting also into her hips and thighs) resembling labour-pain, but continuing without any perfect intermission. She complained also of much pain and throbbing in her head. Though the heat had begun to abate before my arrival,

the skin was still hot and dry; but soon afterwards a profuse perspiration succeeded. The tongue was furred and very white; and the pulse beat at the rate of 150. The breasts were flaccid, and I desired that the child might not be allowed to suck. The abdomen did not shew any tenderness upon pressure. The lochia had returned afresh on the preceding morning, and in the evening she had had a natural and easy stool.

The want of success which had hitherto attended the treatment of the disease, induced me immediately (though it was night) to consult with my father on the management of this case. We were satisfied that no remedy had done so much good as purging, yet it had not proved sufficient for the cure of the disease. We therefore thought it proper to add such means, as might tend to allay the local irritation, without much interfering with the operation of purgatives. With this intention, we ordered a draught with rhubarb and tartarized soda, of each a dram, to be taken immediately; a small clyster with forty drops of tinct. opii to be injected; a large blister to be applied to the abdomen; and a saline draught to be taken every two hours.

Half past two, p. m. The pain had somewhat abated before the medicines arrived. After the injection of the opiate, it had gone off entirely, and had not returned. A slight vomiting had come on after taking the purging draught, and probably a part of it had been rejected. A degree of chilliness succeeded by heat, had returned about one *p. m.* Pulse at 126. I prescribed the following mixture;

℞. Sod. tartariz.—mannæ, $\overline{aa}$ ʒss.

Tinct. senn. ʒij.—Aq. fervent. ℥ij.

Sumat tertiam partem alternis horis;

and ordered a domestic clyster to be injected. I took off the blister, which by mistake had been applied to the back.

Nine, p. m. Two doses of the mixture had been taken, and had procured three loose feculent stools. A degree of nausea had once been felt after taking some broth. Pulse at 134.

15th. *Half past one, p. m.* The patient had passed a very comfortable night, and had slept a good deal. She remained free from pain and soreness in the abdomen; and the secretion of milk seemed to be returning in the breasts. The tongue was cleaner. Pulse at 104. She had had one copious stool of solid fæces in the night,

but none since that time. The saline draughts were ordered to be taken every four hours, and the purging mixture in such doses as to keep open the bowels; also a clyster to be injected in the evening. A table spoonful of wine in gruel was allowed to be given now and then.

16th. The injection had produced two plentiful stools containing large lumps of solid fæces. The patient complained of more pain in her head, and her tongue was furred. Pulse at 96. The medicines were ordered to be continued; another clyster to be injected in the evening; and the feet to be immersed in warm water.

17th. *Four, p. m.* Notwithstanding a pretty good night, she had not been so well this morning. The pain in her head continued; and she had several times experienced an acute shooting pain in the region of the uterus, which did not remain, but had produced some degree of soreness in the abdomen. She complained of thirst; the tongue was a good deal more furred, and the pulse at 104. Several loose evacuations had taken place in the preceding evening, but none after nine o'clock.

Ordered, the opening draught to be given immediately; and the clyster in the evening, if the draught should not operate before nine

CHAP. III.

Case 8.

o'clock. The patient having taken a dislike to the saline draughts, the carbonate of potass with lemon-juice, to be taken in a state of effervescence, was substituted in their place.

18th. The opening draught and injection had failed to operate. The abdomen was distended and hard, but not painful. Some degree of nausea had come on in the night, but had not produced vomiting. The skin was cool and pallid. The tongue was covered with a brown fur, and the pulse was at 112. A repetition of the clyster and opening medicine was directed.

Six, p. m. A copious stool had been obtained, containing a good deal of mucus; and much flatus had been expelled *per anum*. The abdomen was soft, easy, and considerably reduced in size. Countenance good. Pulse 114.

19th. The patient had passed a very good night, and was in all respects better. The pain in the head and abdomen, and the enlargement of the latter, were quite gone. The fur of the tongue was coming off, and the pulse was at 98. A clyster had been injected, and had procured a proper evacuation.

About noon, she was seized with a cold fit, scarcely proceeding to a rigor, which was suc-

ceeded by great heat, a very frequent pulse, and pain in the head. A second clyster was injected, which operated and gave sensible relief. I ordered an opening draught to be taken in the evening, and the clyster to be repeated if necessary.

20th. The draught and injection had both been given, and an evacuation procured by each, containing lumps of hardened fæces, which had the appearance of having remained in the bowels for some time, and had probably been the cause of the cold fit. The head was quite relieved; the fur was cast off from the tongue; and the pulse was reduced to 90. As there was some appearance of languor, a table spoonful of wine was directed to be taken frequently in some nourishing liquid.

21st. No complaint, except soreness of the tongue and fauces, which were affected with aphthæ.

On the 22nd, the patient having been rather longer than usual without a stool, was again attacked with chilliness succeeded by heat, but in a much less degree than before. She was relieved by an injection; but this attack occasioned her a restless night.

From this period, she recovered without any relapse; but was some time in regaining her usual strength, on which account she took various tonic medicines.

Though the first onset of the disease in this case, was pretty severe, yet the affection of the abdomen never became so alarming, as in the generality of cases; which may be attributed partly to the late period of the attack, and partly, perhaps, to the fortunate and rare circumstance of the disease being attended to very soon after its commencement. For, notwithstanding my urgent request after every case of labour, to be sent for without delay, on the accession of shivering or unusual pain, I was seldom called till some hours after the attack.

Dr. Denman has observed,* that lumps will be discharged in the stools, even after a diarrhœa has continued for a long time; and this case, as well as many others which I saw, confirms his remark. † For, though the bowels were freely evacuated on the day after delivery, and never afterwards became constipated; and though, after the attack of the disease, purgatives and

* Introd. to Midwifery, vol. 2. p. 466. Ed. 4.

† See Case ix.

clysters were given every day, yet a remarkable quantity of hardened fæces was repeatedly discharged. Does not this circumstance indicate the propriety of not checking a diarrhœa; but, on the contrary, of early exciting one, and keeping it up through the whole course of the disease?

On a review of the last case, I am persuaded that, had we not been too fearful of exhausting the strength of the patient, but had purged her more briskly at first, the disease would much sooner have been brought to a close.

Soon after the foregoing, two other cases were successfully treated chiefly by purging. The one occurred in my own practice; the other was attended by my father in consultation with another surgeon. The latter was the worst case which I have known to be cured without bleeding; and, in that, blistering appeared to afford some advantage.

After these, three other of my patients, and one of my fathers, were seized with the disease, to all of whom it proved fatal. The subject of one of them was a small delicate woman, who had,

from her childhood, a weakly constitution, which had much stinted her growth; and in none that I attended, did the disease assume so much the appearance of typhus.

I have now enumerated all the cases, which had hitherto fallen under my care. * They were fourteen in number (including two which my father attended), of which eleven died, and three recovered; and they all occurred between December 1809, and the middle of June 1810.

I have particularly stated these numbers, that the reader may form a true estimate of my comparative success on a change of treatment; and also in order to correct some exaggerated reports of my bad success. † I was most anxious in this difficult and distressing conjuncture, to afford my

* I have before observed that I saw many other cases, to which I was called in consultation after the disease was past remedy. But as these could not, with any propriety, be said to come under my treatment; I do not include them in this, or any subsequent enumeration.

In several of these, opium was largely given; but always without success, and generally without even temporary relief.

† It may be thought by some impertinent to mention, that, at the time when I had lost six or seven patients, it was reported that I had lost fifty; but, I trust, the candid reader will excuse the correction of this erroneous statement.

patients every advantage, both by availing myself, as often as I could, of my father's long experience, and by frequently calling in the best medical assistance. I was, however, by no means singular in my misfortunes; for I have reason to believe, that no other practitioner was more successful than myself in his treatment of the disease. Until the period above mentioned, I heard of no case of recovery, except those which I have related; and though some might happen without my knowledge, yet I must have heard of them had they been frequent.

Before I proceed to the next case, which, though but partially successful, I consider as the turning point in my practice—that which determined me to adopt the mode of treatment, by copious bleeding and purging; I wish to notice more particularly the reasons, which deterred me from adopting it sooner.

I have already mentioned one, viz. that some of the latest writers on the subject, had considered the Puerperal Fever, as a species of low fever, or as having a strong and rapid tendency to the typhoid type; on which supposition large evacuations would be thought highly dangerous. *

* It will appear from a variety of quotations given in the

To this may be added, that the same opinion seemed to prevail with medical practitioners at the period of which I am speaking.

A third reason was, that a sudden and early depression of strength was remarked as a peculiar characteristic of the disease, even in robust subjects, whose pulse was full and strong at the commencement of the attack.

And lastly, a circumstance occurred, which, if taken singly, ought not to have had much weight, yet, when considered in conjunction with other reasons, certainly had some influence on my practice; viz. that, at the first appearance of the epidemic, a lady supposed to labour under the disease, who lost twelve or fourteen ounces of blood from the arm, died within thirty-six hours after delivery, and fourteen after the bleeding, without obtaining any relief. *

last chapter, how very general has been the fear of bleeding in this complaint.

* It might have conduced to an earlier discovery of the true nature of this epidemic, had the opportunity been afforded, of examining the state of the abdomen in any of those who died of the disease; but the natural reluctance which is felt by surviving friends, to allow such an examination, is peculiarly strong in respect to those who die in child-

CASE IX.

June 18th 1810, I was sent for to Mrs. B———— a stout middle aged woman, living at a little distance from the town, who had born several children, and was then in labour. The early part of the labour proceeded quickly, but the pains declining in strength, the latter part was slow. The placenta separated spontaneously, and was expelled by the natural efforts; but the uterus did not contract well afterwards, which occasioned too great an effusion of blood. However, by keeping up a compression with the hand on the fundus uteri for about an hour, the hemorrhage was considerably restrained, and I left my patient apparently doing well.

In about an hour, I received an urgent call in consequence of a fainting; and found the uterus much distended with blood. I removed the coagula from the vagina; and, by gently stimulating the os uteri with two fingers of one hand, and compressing the fundus with the other, a good

bed; so that I could not, in any instance, obtain permission to employ this mode of investigation, so peculiarly satisfactory when disease is connected with organic affection.

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contraction was produced, and the hemorrhage ceased. The patient remained languid, but had no more fainting. Pulse 120.

19th. No complaint but languor arising from the loss of blood. Pulse the same.

20th. The strength had improved, but the pulse had rather increased in frequency. Ordered a gentle laxative.

21st. *Eleven, a. m.* The laxative had procured three good evacuations, two of which were loose. The pulse had come down to ninety-six, and was full and strong. I observed the tongue to be dry in the middle.

Three, p. m. Not long after my visit in the morning, the patient had been affected with a slight chilliness, which was succeeded by heat, vomiting, and a continued, though not violent, pain in the abdomen. She complained of soreness when the abdomen was touched; and the uterus, somewhat enlarged, was distinctly to be felt above the pubes. The skin had now become cool. I directed a purging clyster to be injected immediately, and a saline mixture to be taken every two hours in a state of effervescence.

At this time I had not seen Dr. Gordon's Treatise on the Puerperal Fever of Aberdeen; for

it was not much known in Leeds. But I had read the short account of it contained in THOMAS's Modern Practice of Physic; and the last case which had occurred to me, having exhibited evident marks of acute inflammation, I was strongly inclined to make trial of bleeding. This inclination was strengthened by reflecting on the small success which had hitherto attended all other means; and still more so by the consideration, that purging, the other principal remedy of DR. GORDON, was the only one from which I had seen clear and decided advantage. Unfortunately the present case was not favourable to the trial, the patient's strength having been previously reduced by a profuse hemorrhage. No time, however, was to be lost; I determined therefore to repeat my visit soon, and to be guided by circumstances.

Five, p. m. The clyster had been given an hour and was still retained. The vomiting had not returned. The pulse was at 112; and as it was by no means a weak pulse, I determined to take a small quantity of blood from the arm, and to observe its effect. I took away seven ounces, and also applied a large blister to the abdomen.

At Eight, p. m. My father visited the patient

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with me. She had parted with an astonishing quantity of fæces mixed with mucus. The pain came on at intervals, like after-pains; and was very moderate in the remissions, when she lay quite still upon her back; but the least motion of the body occasioned great uneasiness. The blood exhibited a very thick inflammatory crust, and the crassamentum was remarkably firm. The pulse was at 130, and hard. Under these circumstances, it was judged proper to repeat the bleeding to the same quantity.

Ten, p. m. The second quantity of blood was not covered with so thick a crust, but the crassamentum was still more firm than the former. It was like a piece of liver; I could scarcely pierce it with my finger. The pulse had come down to 120, and was more full. She was lying upon her side, which she had not been able to do before, and was quite easy when at rest. She had complained all the day of great thirst. The tongue was clean, but still dry in the middle. A saline draught was ordered to be taken every three hours, and, as she had had several more loose stools, thirty drops of tinct. opii were added to the first.

22d. Throughout this day the pains were

slight and distant, and their remissions almost complete, so that the patient could bear to take her nourishment sitting up in bed. The tongue was moist and clean. Some opening medicine being necessary, a dose of rhubarb and calomel was given, and the clyster repeated. By their joint operation a surprizing quantity of fæces was again discharged in the evening. The pulse was below an hundred in the morning, and in the evening at 116. As she had perspired a good deal, and appeared languid, the saline draughts were directed to be made with an ounce of decoct. cinchonæ. The anodyne was repeated.

23d. She had passed the night without any pain, notwithstanding which she had slept but little. Pulse at 110, and very strong. No more stools: clyster repeated.

Having augured favourably of this case from the gradual and complete cessation of pain, it was with no less surprize than regret, that, in the evening, I found an intire new train of symptoms. The patient having been affected throughout the day with an irresistible propensity to sleep, from which she got no refreshment, awoke in the evening with pain in her head, accompanied with giddiness and ringing in the ears.

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Her face was flushed: her pulse at 132 and strong. She had had three loose stools, and had parted with a large quantity of urine. Some leeches were ordered to be applied to the temples; but finding, on a second visit, that they had not been procured, I took three ounces of blood from the temporal artery. The saline draughts were directed to be made without decoct. cinchonæ, and a blister to be applied to the nape of the neck. Just before the bleeding the pulse was at 120, after it at 112.

24th. I found the patient sitting up in bed to take some refreshment. She had slept several hours in the night. Her countenance was good. It was rather singular, that the left side of the head, from which the blood had been taken, was easy, but the opposite side painful. The crassamentum, as before, was extremely firm. Pulse 126. I took three ounces of blood from the temporal artery of the right side, and the evacuation greatly diminished the pain.

In the evening she experienced a seizure somewhat similar to that of the preceding day. Having been visited by several friends, who had inconsiderately talked and read a good deal to her, she was suddenly affected with a sense of great con-

fusion and noise in the head, accompanied with much heat and flushing of the face. Pulse 140. In consequence of the relief before experienced, she was very desirous to lose some more blood from the temples, and therefore, though the pulse appeared less strong, I took an ounce and half from the temporal artery.

The case having become more alarming by this relapse, a consultation was requested; and a physician who had attended several of these melancholy cases with me, was called in; my father also visited the patient with us. The pulse had come down to 120, and was evidently fuller since the bleeding. The crassamentum was as firm as before. It was agreed, that the saline draughts should be continued, that a blister should be applied to the head, and the temples and forehead be frequently bathed with cold vinegar and water.

25th. *Eight, a. m.* She had had no sleep in the night, but her head was rather more composed, and she was free from heat. Pulse 116. Some indications of a paralytic affection were now apparent. She faltered in her speech, and her tongue when put out, was drawn to one side. At noon the pulse got up to 140, she took little

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notice, and, though she sometimes spoke coherently, an answer to any question could scarcely be obtained from her; her mind also appeared much agitated.

At four, p. m. the physician met us: it was agreed that a little wine whey should be given frequently, and the following medicine was prescribed;

℞. Spt. æther. comp. gutt. xxx.
Spt. ammon. comp. gutt. x.
Aq. puræ ʒiss. M.
fiat haustus tertiâ quâque horâ sumendus.

A draught with fifteen drops of tinct. opii was also directed to be taken at bed-time.

26th. The night had again been passed almost without sleep; but the head was free from pain, confusion, and the sense of ringing. Pulse 116.

Two, p. m. After three hours comfortable sleep, the head was not so well. The bowels were open, and the stools natural. Pulse 120.

27th. I was not able to see the patient myself on this day, and I neglected to minute any account of its occurrences.

28th. She had had no sleep in the night, and was very restless, with some degree of delirium. We found her incessantly talking, but could pro-

cure no answer from her to any question that was proposed. She refused all medicine. Pulse 120.

In the course of the day the abdomen became tumid from flatus confined in the bowels; the tumefaction was unattended by pain or soreness, and intirely subsided as soon as evacuations were procured by an injection.

Ten, p. m. She was in all respects worse. Her urine came away involuntarily; she had some rattling in her breathing, and appeared to be sinking. Pulse 132. Thirty drops of spt. æther. sulph. were ordered to be given now and then as a grateful cordial.

29th. We were agreeably surprized to find our patient much better. During the night she had been able to retain her urine, and had made a large quantity with proper intervals. She was quite sensible, and more composed; and had regained the power of putting out her tongue, which before she had lost. The pulse was at 106, and the tongue continued clean. Ordered to take at regular intervals a draught of infus. rosæ made with decoct. cinchonæ, and to have occasionally a little Madeira wine.

These favourable symptoms did not long con-

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tinue. In the evening the pulse had got up to 120, and the heat had increased.

From this time the patient became gradually weaker, her pulse was accelerated more and more, and her urine was again discharged involuntarily. She lived two days in a state of great anxiety and increasing restlessness, and died on Sunday night the 1st of July.

This case appears to me an instance of a remarkable metastasis of the Puerperal Fever; and had the disease been transferred to a less vital organ than the brain, a more happy crisis would probably have been the result. I have before mentioned that, at Aberdeen, the disease was not unfrequently transferred to the surface of the body, producing an erysipelas on the extremities, which proved a "certain sign of a salutary crisis." And the transition of inflammatory affections of various kinds from one part of the body to another, is a fact well known in the practice of physic. In the case just related, it is observable, that, while the inflammation of the abdomen subsisted, the head was free from all complaint; and that, as soon as the inflammation was completely removed from the abdomen, to which it never in any degree returned, the head became affected with

symptoms of inflammation, accompanied with evident marks of compression of the brain.*

Whatever other conclusions may be drawn from this case, the intire removal of the abdominal affection, and the appearance of the blood, which was of a firmer texture than any I had ever seen, both tended to confirm me in the propriety of bleeding in the disease under consideration. I was anxious to be more particularly acquainted with DR. GORDON's mode of practice; but before I could procure his treatise, I was called to the following case of Puerperal Fever.

CASE X.

MRS. S.——— was brought to bed on the 5th of July 1810, about nine o'clock in the morning. In her former labours she had been subject to a relaxation of the uterus after delivery, which usually occasioned a considerable flooding. Her discharge, at this time, was copious; but, being aware of the tendency to hemorrhage, I

* *Metastasis propriè dicitur, quando, alio morbo quiescente, translata aliò materia novum morbum excitat.*

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was able, by suitable means, to keep it within moderate bounds.

On the following day, at three o'clock in the afternoon, I was called to her in haste, on account of an excruciating pain which had suddenly seized the abdomen. It continued for half an hour without remission; but, before my arrival, it had ceased. As the pain was not preceded by rigor, and the pulse was not accelerated, I could not conclude the case to be one of Puerperal Fever; and therefore satisfied myself with prescribing an opening medicine, and requesting to be sent for immediately, if the pain should return.

Having heard no more from the patient, I visited her late in the evening; and then found that the pain had returned, but with a less degree of severity; and, having had regular remissions, it had been mistaken for the common after-pain, and had therefore created little alarm. The abdomen had become very tender, and the pulse frequent.

No doubt now remained on my mind of the nature of the disease; and, though the attack was less distinctly marked, than in most of the cases which I had seen, my later experience

warrants me in concluding, that the disease would soon have proved fatal, had not vigorous means been employed to check its progress. As night was approaching, I feared to wait till the symptoms became more urgent; and therefore, notwithstanding my reluctance to copious bleeding was not quite overcome, I immediately took from the arm a large basin full (about twenty ounces) of blood, and directed a continuation of the purgative. A cathartic clyster was also injected. The pain was diminished, while the blood was flowing, and on the following morning it was nearly gone; the fever had also greatly subsided. The bowels had been freely evacuated, yet I thought it advisable to maintain the purging undiminished for another day; and then it was suffered gradually to abate. The patient recovered without further complaint.

Thus was an immediate stop put to the disease, which, had the bleeding been omitted, or deferred until morning, would, in all probability, have been irremediable. For though the first attack was, in some respects, less alarming than in many other cases; yet its early period, the severity of the pain, the consequent soreness of the abdomen, and the rapid increase of the pulse,

clearly point it out as a genuine, and not a very slight case of the prevailing epidemic. Perhaps the previous hemorrhage might, in some degree, have obviated its violence.

The next case that occurred, was the first of three, which were all that proved unsuccessful in my practice, out of a great number, after the change of treatment adopted in the preceding case. And I trust I shall be able to shew, that the method of cure which we now employ, had not a fair trial in any of them; and, consequently, that they cannot justly be considered as instances of its failure.

CASE XI.

July 30th 1810, I was called at midnight to MRS. ————, in labour of her sixth child; but as she lived in the country at the distance of two miles, and her labour was quick, the child was born before I could arrive at her house.

August 2d, at half past 9, *a. m.* I was sent for to visit her; and, from the nature of the mes-

sage, I had no doubt she was attacked with the Puerperal Fever. My father happened to be with me on the road, and we went immediately together.

Some sharp after-pains had been excited by several attempts, during the night, to suckle her child; but she had afterwards got some comfortable sleep. At six *a. m.* she had been seized with a violent and continued pain in the abdomen, which, as usual, was aggravated by fits. At nine she had a shivering fit, and immediately sent for me. We were with her by ten. The shivering had then ceased; and was not followed by much heat. Pulse 120. The tongue was clean and moist, yet she complained of thirst. The lochial discharge had increased. The uterus was somewhat enlarged, remarkably distinct, and shewed much sensibility when touched. As the pain of the abdomen had nearly subsided, and the degree of heat was moderate, we took no more than twelve ounces of blood from the arm; leaving a strict injunction that we should be informed, if the pain returned. A bolus, with twenty-five grains of jalap and three of calomel, was ordered to be taken immediately.

Nine, p. m. Though the pain had returned

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soon after our visit in the morning, and had continued throughout the day, we were not informed of it until evening. We found the uterus so much enlarged as to reach the navel, and it was extremely sore upon pressure with the hand; but the severe pain had again abated. The inflammation had not extended to the cavity of the abdomen, which remained soft, except in the region of the uterus. The countenance was pale; the pulse at 134 and feeble. The blood in the two preceding cases, having exhibited a thick inflammatory crust, and a remarkably firm crassamentum, we were not a little surprized to find, that, in the present case, the crassamentum had not formed a cake as usual; but consisted only of a few small coagula of a loose texture floating in the serum. The state of the pulse and of the blood taken in combination, deterred us from repeating the venesection; but fifteen leeches were ordered to be applied to the abdomen. As no more than two stools had been procured by the bolus, half a dram of jalap was directed to be given immediately; and a saline draught with thirty drops of tinct. opii, after three more evacuations should have taken place.

3rd. *Eight, a. m.* The pain had been removed

by the application of the leeches, and the patient had remained free from it all night; but the abdomen was still very tender.

From some peculiar circumstances, it happened that I did not continue to visit this patient; in consequence of which, I kept no journal of the case after the second morning. My father attended her regularly with a physician who was called in. The attack of pain being soon renewed, some blood was again taken from the arm, which exhibited the usual signs of inflammation. The bleeding was too late, however, to be of any use; and the disorder proceeded as in the unfortunate cases already detailed, with this singular difference, that, before death, a mortification affected one of the lower extremities.

Whether the remarkable idiosyncrasy in this case, manifested by the appearance of the blood, and the subsequent mortification of one of the extremities, might not, under any treatment, have placed the disease beyond the reach of art, I will not pretend to determine. But there was cause sufficient, under more favourable circumstances, to account for the fatal event, in the loss of time after the return of the pain; which was of the greater importance, as the quantity of

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blood first drawn, would have been inadequate in most cases to the cure of the disease. For it will appear from some cases which follow,* that taking too small a quantity of blood in the first instance, is not of material consequence, provided the bleeding be repeated in a short time, or as soon as the pain returns.

From the period at which we are now arrived, I adopted DR. GORDON'S method of cure as the basis of my own; making such alterations in it, as the necessity and circumstances of the case seemed to require. My own ideas of the disease had been gradually approximating to the view of it which that author inculcates; or, I might say, had been reverting to their former channel; for I had always been accustomed to employ purging, and sometimes also copious bleeding, in the treatment of the sporadic disease. Having now perused his treatise, the great similarity of the epidemic which he describes, to that

* See Cases 18 and 19.

which I had seen, produced a full conviction, that his opinion of the nature of the disease was just, and his mode of practice preferable to every other. It will therefore be proper, before I proceed, to state what that practice was; which I will do as briefly as possible, and in his own words.

"The method which I found most successful "was, by copious bleeding, soon after the attack "of the disease. But this did not answer the "end unless it was performed early, and in large "quantity.*" "When I took away only ten or "twelve ounces of blood from my patient, she "always died; but when I had courage to take "away twenty or twenty-four ounces, at one "bleeding, in the beginning of the disease, (i. e. "within six or eight hours after the attack†") "the patient never failed to recover.‡"— "After bleeding it was my practice to give some "active purgative, on purpose to bring on a "diarrhœa, which, when excited, I found neces- "sary to continue through the whole course of "the disease, till it was entirely conquered.‖"—

* Gordon on the Puerperal Fever, p. 77. †Ibid. p. 80. ‡ Ibid. p. 78. ‖ Ibid. p. 85.

"And it is a matter of the utmost moment, "to prescribe such purgatives as will operate "with all possible speed."—"I found that "most dependence was to be put in calomel "and jalap; three grains of the former and two "scruples of the latter were mixed with con- "serve of roses, and made into a bolus, which I "always administered immediately after bleed- "ing.*"—After this a purging mixture "was "given, in such proportions, as to produce five "or six motions every day, without intermission "for the first three days of the disease: after "which I diminished the dose, but still continued "the medicine, till the disease totally ceased. "Every night, I administered an opiate, in "order to give a respite to nature, and strength "to the patient, to enable her to bear the "evacuations, which she must necessarily under- "go the ensuing day."

"In this manner I treated my patients, and "the same method, if followed by others, will, "I am confident, be attended with equal suc- "cess.†"

With respect to the prevention of the disease,

* Gordon on the Puerperal Fever, p. 87. † Ibid. p. 88.

he says, "The purging bolus, which was so "effectual in the cure, was equally efficacious "as a preventive. This bolus was given the "day after delivery, in the morning"—and "all, "who got it, escaped, except*" one.

Now although I found it necessary, in many instances, to make no inconsiderable deviation from the method of treatment just described, yet I very willingly acknowledge the greatest obligations to it. In Dr. Gordon's practice, it was completely successful; in mine, it was an excellent guide; and, if it did not always prove sufficient for the cure of the disease, I attribute its failure to the greater violence of the epidemic at Leeds, and not to any unsuitableness in the means: but of this more will appear in its proper place.

CASE XII.

Mrs. W————, a young woman of a delicate constitution, was delivered of her second child, after a lingering labour, on the 8th of August 1810, at one o'clock in the afternoon. Being much exhausted with the fatigue of labour and the loss of sleep, she had a very imperfect

* Gordon on the Puerperal Fever, p. 100.

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contraction of the uterus; and lost a considerable quantity of blood. She became extremely faint; and the frequent administration of cordials scarcely prevented a complete syncope.

On the morning of the 10th, she took twenty-five grains of jalap and three of calomel, in a bolus, which procured ten stools.*

11th. I was called to visit her at six o'clock in the morning, and my father accompanied me. She had been seized, between one and two, with a violent rigor, which was immediately succeeded by a severe and continued pain in the abdomen. We found the body swelled, and excessively tender. The head was also affected with very violent pain and throbbing. The pulse was at 140. The lochial discharge had increased. I took from the arm, by a large orifice, sixteen ounces of blood, which occasioned so great a degree of faintness, that I was then obliged to close the vein. Soon after the blood began to flow, the pain was sensibly abated; and, though constant before, had afterwards complete inter-

* As there was no difficulty in moving the bowels before the commencement of the disease, and as the operation of the bolus was often excessive, I never gave, as a preventive, the full dose advised by Dr. GORDON.

missions. It continued to come on by fits, like after-pain; but gradually diminished in strength and frequency. As the patient lived at a little distance from the town, I determined not to leave her till she was completely relieved, or till my presence was no longer useful.

At eight, *a. m.*, as soon as the faintness had abated, I gave a bolus with half a dram of jalap. At nine o'clock, after an interval of ease which continued twenty minutes, and during which she was disposed to sleep, the pains became rather stronger, and appeared to be increasing in frequency. This alarmed the friends of the patient, and they requested to have a consultation. Two physicians were immediately sent for; but before their arrival the pain had again abated. The pulse had come down, after the bleeding, twenty strokes in a minute; but had now risen again to 140. The crassamentum was covered with an inflammatory crust, and was of a firm texture.

I stated to the physicians the plan upon which I was treating the case, and the relief which the patient had already obtained. With their consent the same plan was pursued; and soon after eleven o'clock I opened the orifice in the arm

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again, and took away four ounces more of blood, to complete the smaller quantity prescribed by DR. GORDON; for I did not think it prudent, in this case, to take the larger without apparent necessity. A clyster was ordered to be injected immediately, a large blister to be applied to the abdomen, and a saline draught with five drops of vin. antimon. to be given alternately, about every two hours, with a solution of magnes. sulphas.

After the second bleeding, the pain gradually abated; the patient fell asleep at one *p. m.*, and awoke at two quite easy; and from that time the pain returned no more. She continued to sleep frequently during the day, and was soon able to lie upon her side, which, before, she had not been able to do. She took half an ounce of magnes. sulphas in the course of the day, but no stools were procured; and the pulse kept up at the rate of 140. In the evening another clyster was injected, and a stronger opening mixture prescribed; after taking a dose or two of which, copious evacuations followed. The pulse began to subside soon after the operation of the purgatives. The diarrhœa was kept up for some days, and the patient recovered without any

material occurrence, but what arose from debility.

The malignant nature of the epidemic, and the efficacy of its true remedy, are strikingly shewn in this very instructive case. A strong purgative, which DR. GORDON found so effectual as a preventive, and a great loss of blood, far more than would have sufficed for the cure of the disease, could not avert the blow; and I have scarcely known an instance, where the pain became so violent and unremitting, the pulse so rapid, and the abdomen so much swelled, in so short a time. Yet it is evident, that the means which failed to prevent, were suitable and effectual for the cure. No case could, therefore, more clearly demonstrate the genuine character of the disease; or be better calculated to give confidence in the treatment, and to allay the fears which an attack, under such circumstances, could not fail to suggest.

In the month of September, two of my patients, whom my father attended in labour, in consequence of my absence from home, were affected with the Puerperal Fever. The former

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of them was speedily and effectually relieved by copious bleeding and purging. The latter was less fortunate. Her case was the second of the three unsuccessful ones to which I have before alluded.* It will therefore be proper to give some account of it.

CASE XIII.

Mrs. ——— was brought to bed on the 12th of September 1810, about eight o'clock in the morning. In the afternoon of the 14th, she was seized, in the usual manner, with the Puerperal Fever; but my father was not called to her until six hours after the attack. He immediately took away from the arm twenty-six ounces of blood, and prescribed a purging bolus. The bleeding afforded great relief.

He was called up in the night to visit her, about six hours after the bleeding, in consequence of an increase of the pain. He was very desirous to repeat the venesection; but no entreaties could prevail with the patient to suffer it. He was therefore obliged to rely on purging alone, which proved inadequate to overcome the vio-

* Page 94.

lence of the disorder. Other remedies, such as salines, anti-emetics, blisters &c., were tried in vain: the complaint proceeded with the usual symptoms, which it is needless to repeat; and the patient died on the third day from its commencement.

From the considerable abatement of pain obtained by the bleeding, and the good effect of repeating it in many similar cases, it may reasonably be concluded, that, had the patient submitted to a second operation, her life would have been saved.

This case furnishes a proof, that the larger quantity of blood prescribed by DR. GORDON, will not always suffice for the cure of the Puerperal Fever. He says, "I found that "twenty-four ounces of blood, taken away at "one bleeding, within six or eight hours after "the attack of the disease, together with a "single purgative, never failed, at once, to cure "the Puerperal Fever.*" Now, in the present instance, twenty-six ounces were taken within six hours, and a purgative given, yet the disease proved fatal. Hence we are led to

* GORDON on the Puerperal Fever, p. 84.

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conclude, that the Epidemic at Leeds was of a worse kind, than that at Aberdeen; and we see also the impropriety of limiting the loss of blood, in all cases, to any precise quantity.

But I would observe, that this conclusion does not rest upon the single case just related, for it was not the only one in which DR. GORDON'S plan failed; and I am satisfied that it would have failed in many more of my own patients, had I not far exceeded the quantity of blood limited by that author.

CASE XIV.

On Sunday evening, the 7th of October 1810, a surgeon of this town called upon me, to request my attendance on a poor woman, his patient, who had been attacked with the Puerperal Fever in the morning of that day. She had been delivered of her first child, after a hard labour, on the preceding Friday at nine in the morning; and, at seven on Sunday morning, she had had a shivering fit, which was followed by a great degree of heat, and severe pain in the abdomen. The surgeon was not sent for till half past two *p. m.;* and, being then from home, he did not.

visit her till five. He opened a vein in the arm, but got no more than an ounce of blood; he also sent her a bolus with twelve grains of jalap and three of calomel; and ordered a clyster to be injected.

At half past Seven, we saw her together; and the pulse, which before had been at 122, had risen in the space of about two hours to 138. The abdomen was excessively tender, and was swelled in the hypogastric region. The continued pain was not now acute; but had its regular exacerbations, which were severe. The patient lay still upon her back; her respiration was very frequent, and the least change of posture was effected with much pain and difficulty. The tongue was white and rather dry.

As more than twelve hours had now elapsed since the period of the attack, I was fearful that even the larger quantity of blood advised by Dr. Gordon, might not be sufficient; and therefore I took, by a large orifice, thirty ounces. The patient bore the evacuation well till near the end, when she became faint, and soon afterwards had a slight deliquium. The pain and sensibility of the abdomen were immediately diminished, and the former, as in the last case, was brought to

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have complete intermissions. Half a dram of jalap (in addition to the former dose) was ordered to be given immediately, and the following infusion prescribed.

℞ Fol. sennæ ʒij.

Mannæ—Potass. tartar. āā ʒvj.

Aq. ferventis ℥iv. Macera et cola.

Sumat coch. ij ampla, horis quatuor elapsis, et repetatur dosis alternis horis, donec aptè dejecerit alvus.

Monday, Seven, a. m. We found the patient asleep, but she awoke during our visit. She had passed a comfortable night. The pain of the abdomen had gone off; but the soreness, on pressure or motion, was still considerable, and the breathing frequent. The whole of the infusion had been taken, and seven motions procured. Pulse about 120, but not easy to be counted. It is probable that a continuance of the purging alone would now have subdued the disorder; but the great soreness of the abdomen induced me to advise also the application of ten leeches. A saline mixture was ordered to be taken in a state of effervescence.

Half past Three, p. m. The purging had continued, and eight leeches had been applied. The

pulse, which was at 116, had risen in strength and fulness, and the soreness of the abdomen had somewhat abated.

Tuesday, half past Seven, a. m. The patient had had several stools in the former part of the night; but had slept since four o'clock. The soreness of the body was much diminished, though not removed; and motion was more easily performed. The tongue was moist, and nearly clean; the pulse varied from 110 to 120. Ordered a repetition of the infusion every three hours.

Five, p. m. All the symptoms had improved. Pulse at 92. Only two motions had taken place during the day. Ordered, to take the infusion with such intervals, as might procure a stool about once in four hours.

I now ceased to attend the patient, but learnt that she had a perfect and speedy recovery. The purging was kept up for a day or two longer, and then suffered gradually to decline.

The third and last of the fatal cases before mentioned, * comes next in order. The subject

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of it, I have already stated, was consumptive; and it is not to be wondered, that a disease so violent as the Puerperal Fever, should have proved too much for the exhausted constitution of one, who was so soon to be the victim of a disease, not less formidable in its consequences, though less rapid in its progress. It is rather surprising, that the fatal event should have been so long delayed.

CASE XV.

Mrs. H——— being far advanced in a consumption, was seized with premature labour on the 17th of October 1810. On the day after delivery, she took a purging bolus, with twenty-five grains of jalap and three of calomel. This excited a diarrhœa in such a degree, as I judged it proper to restrain by the mistura cretæ with tinct. opii. She was attacked on the fourth day with the Puerperal Fever; but, the pain being less violent than common, I was not informed of it till I accidentally called upon her in the evening; and she had then been some time ill. This circumstance greatly enhanced the danger; and the previous state of the patient's health,

which was peculiarly unfavourable to both the principal remedies of the disease, rendered the case almost hopeless. I ventured, however, to take away about twelve ounces of blood; and prescribed ten grains of jalap, which was followed by small doses of the sulphate of magnesia, frequently repeated.

A quantity of blood, nearly equal to the former, was drawn from the arm on the following day. A blister was applied to the abdomen; purgatives also and opiates were given every day for some time, the latter being rendered necessary, in this case, by the peculiar irritability of the stomach and bowels.

The mitigation of the disease effected by these means, prolonged the life of the patient to the end of six weeks—a period beyond which she could not long have survived, had the Puerperal Fever not supervened.

This very unusual respite might have led me to doubt, which of the two disorders should be considered as the cause of death, had not the continued enlargement of the abdomen convinced me, that the consequences of the abdominal inflammation were not entirely removed.

The last, the thirteenth, and the eleventh cases,

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Case 16.

I repeat, were the only fatal ones in my practice, after that in which I first had recourse to bleeding: and if the circumstances of each are duly weighed, and compared with the mode of treatment recommended in the sequel; I think it will be allowed, that no inference unfavourable to that mode, can fairly be deduced from them.

CASE XVI.

November 9th 1810, about one o'clock in the morning, Mrs. H———— was safely delivered of her sixth child. On the following morning, she took the bolus, with twenty-five grains of jalap and three of calomel, which I regularly directed my patients to take on the day after delivery. About ten o'clock the same morning, she was suddenly attacked with a violent pain in the abdomen, which continued without intermission for twenty minutes. She was visited soon after the pain had ceased, and, her pulse being then little more than seventy, nothing more was done than to order a solution of magnes. sulphas* to be taken at intervals, with

* This solution was in the proportion of an ounce of

the intention of assisting the operation of the bolus.

She remained easy for some time; but at seven o'clock in the evening, I found that pain and soreness in the abdomen were gradually coming on. The pulse was still no more than between eighty and ninety.

Nine, p. m. The pain and soreness had greatly increased, and the pulse had got up to nearly 130. The head was slightly affected with pain, and much more so, with giddiness and a sense of confusion; so that the patient scarcely knew what was passing around her. The necessity of treating the case as one of Puerperal Fever being now manifest, I took away about thirty ounces of blood; and, in addition to the purgatives already taken, prescribed another bolus with a scruple of jalap, and a continuation of the cathartic solution. The disease was immediately alleviated; and by maintaining a brisk purging for two or three days, it entirely ceased without the recurrence of any bad symptom.

magnes. sulphas to eight ounces of water; and to avoid repetition, I shall, in future, call it *the cathartic solution*.

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Case 17.

This case is similar to the tenth; but more strongly shews, that the disease may prove severe, though not preceded by rigor, nor accompanied, on its first accession, by continued pain, or a quick pulse. The rapid increase of the pain and soreness, and the remarkable acceleration of pulse, in the short interval of two hours, sufficiently characterize the nature and violence of the disease.

CASE XVII.

Mrs. ——— is a lady of a remarkably delicate constitution. In her former lyings-in she had not been able to suckle her children; and the mere attempt to do it, in one instance, so much affected the nervous system, as, for a short period, nearly to destroy vision. She was some time in recovering from the consequences of this attempt; and at all times, evacuations and reduction of every kind had a great effect upon her.

She was brought to bed on the 29th of November; and unfortunately a considerable hemorrhage succeeded her labour, which occasioned a great degree of faintness. Under these circumstances,

I had peculiar fears for the safety of this patient, in case she should be attacked with the Puerperal Fever, being fully persuaded that she could not bear the evacuations, which, in other cases, were necessary for its cure. But, notwithstanding the great discharge after labour, and the effect of the purging bolus given on the following day, she was attacked on the 2nd of December, about noon, in the manner described in the last case.

In the evening, I found that the pain had not returned in any considerable degree; but the abdomen was becoming tender, and slight pains came on now and then. I directed a purging injection; and desired that the cathartic solution, which had been ordered at the first visit, but of which little had been taken, might be continued every two hours during the night, or until proper evacuations had been procured.

In the morning, I was sorry to find that the injection only had been given; and that all the symptoms were increasing. I desired that three table spoonfuls of the solution might be given immediately, and repeated in three hours, with a scruple of jalap in each dose. I directed also a repetition of the injection.

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Case 17.

At noon, my father visited the patient with me. The pain was still increasing, the abdomen had become very sore, and the pulse frequent: in short, the disease was rapidly advancing; and we were satisfied that nothing could save her life, unless bleeding and purging might do it. We therefore agreed, that eight ounces only of blood should be taken from the arm, on the supposition that, in this case, more could not safely be lost.

Finding, after I had drawn this quantity, that the patient was not faint; and believing that her life depended upon taking, at this time, such a quantity as would cure the disease (for I apprehended that a repetition of the bleeding would not be practicable); I suffered the blood to flow, till some degree of faintness was perceived, which did not happen before I had taken fourteen ounces.

The faintness was considerable, and continued for two hours in a degree but just removed from syncope, which was scarcely prevented by the frequent exhibition of some nutritious liquid in small quantities. During this period the pain was quite removed; but it returned in some measure when the faintness had ceased. A scruple of

jalap, with the addition of three grains of calomel, was continued at intervals of three hours; and it was not until the purgatives began to operate, about eight o'clock in the evening, that complete relief was obtained. From that time the pulse immediately declined in frequency; the patient had a comfortable night, and her recovery proceeded without interruption.

The remarks made on the 12th Case, are peculiarly applicable to the preceding one; and they both afford convincing evidence, that the means which are necessary for the cure of the disease, will not always prevent it. The progress of the disease in this case, was, indeed, slower than usual; so that a lapse of twenty-four hours between its first attack and the bleeding, did not prove fatal; but this may, with much probability, be attributed to the evacuations previous to its commencement. For those evacuations were not only very copious; but, if estimated by the ability of the patient to sustain them, as well as by their actual quantity, they may be considered as larger than in any other case.

In this and many other instances, I have observed that the pain has not been completely

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Case 18.

subdued, nor the pulse much reduced, until the purgatives had produced a good operation; which shews the importance of exciting a purging as early as possible, and, therefore, of giving such medicines and in such doses as are likely to ensure this effect.

The subjects of the two following cases were my patients; but the former of them was delivered by another surgeon, in consequence of my absence; and it happened that they were both chiefly attended by my father, after the commencement of the Puerperal Fever.

CASE XVIII.

Mrs. A——— got her bed, after a quick and easy labour, in the evening of the 9th of January, 1811. She took the purging bolus on the eleventh; and remained quite well until early in the morning of the twelfth; when she was attacked with the symptoms of Puerperal Fever. My father visited her at nine o'clock. Her pulse was then about 120. He bled her

pretty largely in the arm, directed a purging clyster to be injected, and prescribed the cathartic solution, of which three table spoonfuls were to be taken every two hours.

Two, p. m. Finding that the pain was not removed, he repeated the venesection; and again, under similar circumstances, at six in the evening; taking away in the whole thirty-six ounces of blood. The last evacuation gave complete relief. The solution operated freely, and was directed to be continued in such doses, as should keep the bowels in a loose state.

13th. The pulse was reduced to 84, and the abdomen was easy. The solution was continued at proper intervals, and the patient recovered without any relapse.

CASE XIX.

Mrs. D———, a woman of a weakly constitution and a strumous habit, was delivered on the 7th of February 1811, late in the evening; and her labour was succeeded by a larger discharge than was desirable. She got the purging bolus on the morning of the ninth, which had a smart operation.

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Case 19.

On the 11th, early in the morning, she was seized with a shivering fit, followed by pain and soreness in the abdomen, and a very frequent pulse. My father saw her about nine, *a. m.*, and took away sixteen ounces of blood from the arm; the delicate constitution of the patient, and the previous hemorrhage, deterred him from taking more. He directed the injection of a purging clyster, and a repetition of the purging bolus, with *thirty* grains of jalap. He also prescribed the cathartic solution to be taken every two hours.

Two, p. m. The pain not having subsided, the bleeding was repeated; but, as she soon complained of a noise in her ears, and seemed disposed to faint, the orifice was closed after about five ounces of blood had been drawn.

In the evening, the pain still continued; and there was every reason to fear, that the quantity of blood already drawn, would not prove sufficient to cure the disease. My father therefore determined, notwithstanding the weak state of the patient, to open the vein a third time, and to take away as much blood as she could well bear to lose. He got about a pound more, making in

the whole thirty-seven ounces. The last evacuation, with the application of a blister to the abdomen, and a good operation of the purgatives, succeeded in removing the pain.

12th. The pulse had come down to 80, and no complaint of any consequence remained, but a troublesome cough; for which an anodyne mixture was prescribed. The bowels were kept open by the solution, and the patient had a good recovery.

If the quantity of blood necessary to cure the disease, could, by any means, be known beforehand, it would, undoubtedly, be advisable to take the requisite quantity at first; for a smaller loss of blood would, in that case, suffice, and the patient would then be more able to bear it. But it is important to know, and it appears evident from the two last cases, that blood-letting may, with good effect, be repeatedly performed; provided it be done within a short time. The 13th Case had shown, that the larger quantity of blood which DR. GORDON has prescribed as a certain cure, will not always be sufficient; and these tended further to prove the necessity of bleeding very copiously, and to indicate the

expediency of doing it early, and, so far as may be practicable, at one operation.

It was observed, in the second chapter, that the Puerperal Epidemic at Leeds had some considerable intermissions. The longest of these was from the autumn of 1811, to the summer of 1812. I cannot exactly ascertain at what time it ceased; but no case of it occurred in my own practice, except a few which my father or I attended in consultation with others, from the 10th of July 1811, to the beginning of June 1812. About that time it again made its appearance, and with no less violence than at its first commencement; if such a conclusion may be drawn from the nature and degree of the remedies, which seemed requisite for its cure.

CASE XX.

June 4th 1812, about noon, MRS.———— who was young and of a good constitution, was delivered of her first child, after a natural labour of sixteen hours. On the following day

the purging bolus was prescribed; but I have since learnt that it was not taken. She had scarcely any afterpain, and the secretion of milk took place at the usual period; but was rather scanty.

She remained well till the 9th at noon, five complete days; when she was seized with a severe pain in the abdomen, resembling labour-pain. We were immediately sent for; but, my father and I being absent from home, one of our pupils saw her. The pain having abated, and the pulse being no more than eighty-six in a minute, he only requested that we might be informed if the pain should return.

No message was received; but my father visited her at four, *p. m.* The pain had returned a short time before, and was so acute as to cause her to cry out. The abdomen was exquisitely sensible between the paroxysms of pain; and the pulse had risen in the space of four hours to 134 (forty-eight in a minute), though the pain had been absent nearly the whole of the time. The head was not affected either with pain or confusion. He immediately took away from the arm thirty ounces of blood. As the bowels were in an open state, two evacuations having taken

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Case 20.

place in the morning, in consequence of a laxative prescribed on the preceding day, instead of the usual purging bolus, he ordered the cathartic solution, with a grain of antim. tartar. in eight ounces, of which three table spoonfuls were to be taken every two hours.

Ten, p. m. The pains had continued at intervals till seven o'clock. Since that time they had nearly ceased; but the soreness of the abdomen had not abated, although three loose stools had been procured, and as the pulse was full, and beat at the rate of 120, it was thought advisable to take away ten ounces more of blood.

The pain returned soon after the bleeding, though in a much slighter degree than at first. The patient also complained much of sickness, which I attributed more to the antimonial, than to the loss of blood. Between ten and one o'clock she had two more stools, and the sickness increasing, the contents of the stomach were also evacuated. For a while after the vomiting she was comfortable and easy; but, the pain having returned, I had proposed at two o'clock to open the vein a third time; however, during the necessary preparations, the pain ceased and she fell asleep. I sat by her an hour,

and then, finding that the pulse had come down to 108, I left her asleep. The solution was directed to be continued without the antimonial.

10th. My father called at the house at six *a. m.*; but learning that she was asleep, he did not see her.

Ten, a. m. She had had frequent evacuations, and remained free from exacerbations of pain; but the soreness of the abdomen was still considerable; and the pulse, which was at 106, being full, it was judged most prudent to repeat the venesection, and eleven ounces of blood were again drawn.

Evening. The pain had not returned, and the tenderness of the abdomen had gradually decreased. Pulse 100—Bowels open.

11th. She had passed a good night, the soreness had quite gone off, and the pulse was at ninety-eight. The secretion of milk and the discharge of lochia, both of which had been small before the attack of the disease, had returned afresh, and leave was given to have the breasts gently drawn.

There was now every reason to hope that the disease was subdued, and that nothing remained to be done, but to keep the bowels in an open

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state, and to avoid the occasions of any fresh irritation. We were therefore not a little disappointed, to be informed about four *p. m.*, that the pain had returned with much severity. On inquiry, this relapse appeared to have been occasioned by too much exertion in suckling the child. The patient had fatigued herself by sitting up some time in bed, attempting to give the breast, and the pain immediately succeeded. The pulse had got up to 118. Fifteen ounces of blood were again taken from the arm, and, no stool having been procured for five hours, the solution was ordered to be repeated every two hours.

Ten, p. m. The pains had been entirely removed since the bleeding; but the soreness still continuing, we were desirous of applying some leeches to the abdomen. The lateness of the hour, however, made me prefer the application of cupping glasses; but I found the laxity of the integuments so great an impediment to this operation, that little blood was obtained. A warm fomentation was applied to the abdomen, which was very comfortable to the patient, and disposed her to sleep. The pulse was at 126. One evacuation only had been procured, and the

solution was ordered to be continued. I remained with her till one o'clock, and then left her asleep.

12th. Visited early. The stools had been frequent, had disturbed her rest, and she seemed rather exhausted. Pulse 110.

Nine, a. m. She had slept an hour and half, and was much refreshed. Pulse 100. The soreness had abated. The solution was directed to be taken in such quantity, as might procure a stool about once in four hours.

In the afternoon, the soreness not having gone off so completely as might be wished, ten leeches were applied to the abdomen, which afforded great relief.

From this time, till the 15th, nothing particular occurred. The solution was given as occasion required, and a saline draught in the intervals, both of which the patient always found refreshing to her; and she continued gradually recovering.

On the 15th, at noon, there was a return of slight pains in the abdomen, accompanied with increased heat in the skin and a quick pulse. At two, *p. m.*, I found the pulse nearly at 130; but the pain had gone off, and no soreness of the

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abdomen remained. The frequency of the pulse subsided as the heat declined, and in half an hour it had come down to 110. I did not apprehend any serious consequence from this slight attack, but, at the request of the patient, eight leeches were applied to the abdomen.

Her recovery was afterwards regularly progressive; but she was some time in regaining her strength. The progress of amendment was retarded by an attempt to regain her milk and to suckle her child; but, after a trial of some weeks, the attempt was then relinquished in consequence of its debilitating effect on the system.

We have here another instance of the necessity for *very copious* bleeding in some cases of Puerperal Fever. Thirty ounces of blood were taken away within four hours of the commencement of the disease; and a purging was early excited, which was maintained through its whole course; yet it did not appear to be subdued, until fifty-one ounces of blood had been lost. On account of the return of pain, fifteen ounces more were taken; besides a small quantity by cupping, and the application of leeches; making in the whole nearly seventy ounces. Should any one doubt whether the cure might not have

been effected by a smaller loss of blood, at least it must be allowed, that large bleeding was proved to be safe; and it will scarcely be denied, that the inconvenience of a temporary debility is not to be put in competition with risquing the loss of life.

CASE XXI.

August 3rd 1812, at one o'clock in the morning, the wife of J. W——— of Hunslet, a woman of rather delicate appearance, was delivered by a midwife of her 12th child, after an easy labour of about an hour. Her discharge both at the time of labour and afterwards, was said to be copious, but not excessive. On the following morning she had a shivering fit, which was not, however, succeeded by pain; and she remained quite well throughout the day. The after-pains were slight.

5th. At four o'clock in the morning, she was suddenly seized, without any previous chilliness, with a violent pain in the body resembling labour-pain, but of much longer duration. It increased progressively during the day; and in the intervals, which were not longer than a quarter of an hour, the abdomen was sore.

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I first saw her between four and five in the afternoon, and found her crying out in pain like a woman in labour. The remissions were now very short. There was little heat in the skin, and the countenance was pale; the tongue was clean and moist; the pulse about 112 and hard. The head was no way disordered. The abdomen was not swelled, nor the uterus distinctly to be felt. Pressure on the hypogastrium excited pain; but not in that great degree which is common in this complaint; and motion of the body was effected with tolerable ease. The child had sucked several times on the preceding day, but only once on this day; and that had greatly aggravated the pain. The breasts were now quite flaccid. The patient had taken some opening medicine, which had produced one loose evacuation in the morning.

The symptoms, in this case, were not the most alarming, considering that thirteen hours had elapsed since the commencement of the disease; but the pain was violent, and the loss of time was more than a counterbalance to the apparent mildness of the other symptoms. I was therefore satisfied that large bleeding, in the first instance, was necessary; especially as night was

approaching, and the patient lived at some distance from me. I first took away twenty-five ounces of blood, without producing any degree of faintness; when I closed the orifice for a few moments, till another basin was procured; and then drew nine ounces more. She was now disposed to faint, and the pain was much diminished. I put my finger on the orifice, and waited a while. The faintness soon went off, and the pain returned; I therefore took away six ounces more, making in the whole forty ounces. The patient becoming again very faint, I tied up the arm: she soon recovered, and remained easy. Pulse 88. A clyster was injected as soon as it could be prepared, which in ten minutes produced a very copious evacuation of solid fæces. At six *p. m.*, I gave a bolus with half a dram of jalap and four grains of calomel; and left directions that three table spoonfuls of the cathartic solution should be taken every two hours, till the bowels should be well opened, beginning two hours after taking the bolus.

Half past Ten, p. m. The pain had returned soon after I left her, and with as much severity as before the bleeding. She had had three small watery stools, which did not appear to be

the effect of the purgatives. The heat of the skin was now considerable, and was attended with much restlessness. The pulse was at 120, and still hard. The tongue was rather white, and the abdomen was much more tender; particularly in the region of the uterus, which had become enlarged, and easily distinguishable. This increase of all the symptoms since my former visit, seemed not only to justify the quantity of blood then taken; but to require a further evacuation. I tied up the arm, and took eight ounces from the same orifice; when, the patient growing faint, I desisted. The pain was much alleviated by this second bleeding, and the pulse came down to 84. I ordered the solution to be taken every hour.

6th. *Eight, a. m.* She had remained nearly free from pain all the night; the soreness had greatly abated, the uterus was diminished in size, and she had slept several hours. The skin was moist and of a natural heat; the pulse at 100. She had taken above two ounces of magnes. sulphas, besides the purging bolus; and had had many small evacuations, which, however, contained but little fæces. Two boluses were therefore prescribed, with fifteen grains of jalap

and two of calomel in each, to be taken with an interval of two hours; and the solution was ordered to be afterwards continued.

Six, p. m. Both the boluses had been taken, and the remainder of the third ounce of magnes. sulphas, which had procured a great number of natural stools. The patient continued free from pain; the soreness of the abdomen was quite gone, and the uterus was scarcely to be felt.

7th. She had slept the greatest part of the night, and the pulse was at 84. The bowels were kept open, and she continued convalescent.

CASE XXII.

August 17th 1812, the wife of J. N———, a small delicate woman, was brought to bed of her first child. Her labour was quick and easy, and her discharge moderate. On the following day she took the purging bolus, which procured only two stools.

20th. At five in the morning, she had a slight shivering, which was succeeded by some degree of heat; but she was pretty well after it till two o'clock in the afternoon; when she was affected with a severe pain just above the right

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groin, which gradually increased during the remainder of the day. I was sent for in the evening; but, not being able to visit her immediately, I ordered a bolus with half a dram of jalap and three grains of calomel.

I saw her between nine and ten o'clock, and the pain had then abated; but the part affected was endued with great sensibility, The skin was hot, and the pulse at 100. I ordered three table spoonfuls of the cathartic solution to be taken every four hours, till the bowels should be sufficiently opened.

21st. I received a message early in the morning, informing me that the patient was better, in consequence of which I did not see her till the afternoon. I found the pain trifling; but the soreness still continued, and the pulse remained the same. She had vomited on the preceding evening; but the solution had been retained, and several loose stools procured. I directed the solution to be continued; and a draught with twenty drops of tinct. opii to be taken at bed-time.

22nd. I was called up to visit her at five in the morning, and was informed that she had had a very bad night. The severe pain had

returned at twelve o'clock, soon after taking the anodyne draught; and had continued with intervals during the night. The pulse was at 102 and hard, the countenance pale and anxious, the skin hot, and the tongue dry, with much thirst. She complained of pain in her head, attended with giddiness (especially on sitting up) and a sense of confusion. She had had several small watery stools in the night. I took away twenty-four ounces of blood from the arm, when she became faint. She received very sensible relief from the evacuation, and the pulse came down to 72. This sudden depression of the pulse, as in some other cases, appeared to be a temporary effect of the faintness. I gave a bolus with fifteen grains of jalap and two of calomel, and ordered a repetition of it in two hours; directing that the solution might be given once in the interval, and continued after the second bolus.

Between ten and eleven, *a. m.*, I found that she had continued pretty easy; she was then in a sound sleep. The blood was cupped and exhibited a thick coat of size. She had taken the purgatives as prescribed, which had procured two copious evacuations of solid fæces.

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Five, p. m. She had remained easy till three o'clock, and was then seized with violent pain, as before. I repeated the bleeding to the quantity of twelve ounces, and the pulse, which had again become frequent, was reduced to 88. Two or three evacuations had taken place since ten o'clock; but only one dose of the solution had been given since that time. I ordered it to be repeated every hour.

Eleven, p. m. An ounce of magnes. sulphas had been taken since five o'clock, and five stools procured in the last six hours. The pain had been considerable for an hour after the last bleeding; but it then ceased, except some slight pains coming on at intervals. Pulse at 116. I desired that the solution might be given, whenever she had been three hours without an evacuation; and a saline draught in its stead, when the solution was not required.

The complaint, in this instance, was long protracted; but though I kept a regular journal of it, a detail of its minute variations would, perhaps, be more tedious than useful. Before the disease was completely subdued, which did not take place till the completion of fourteen days from the attack, there were four distinct

paroxysms of fever; three of which were accompanied with a renewal of pain in the abdomen. They all took place after a cessation of the purging for some hours; and two of them after the exhibition of opiates; and were immediately relieved by reproducing the diarrhœa. The tongue did not become perfectly moist till the 29th or 30th; but its dryness was always the worst when the bowels were most confined. It was particularly dry and brown on the 28th, when, in consequence of passing the whole night and part of the day without a stool, the patient had a paroxysm of fever and pain. The last attack was on the 1st of September; it began with a slight shivering, which continued an hour, and was succeeded by increased heat with a quick pulse and dry tongue.

This was one of those insidious cases, which prove embarrassing and dangerous from the difficulty of ascertaining the true nature of the disease in its first stage. The loss of time thus incurred, occasioned the necessity of a long course of purging; though the symptoms were at first by no means urgent, and the abstraction of blood (thirty-six ounces) was as great as, in the present instance, could safely be ventured upon.

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Case 23.

The efficacy of purging, the inutility of opiates, and the danger of restraining a diarrhœa, or of suffering it to cease even for a short time, until the disease is quite removed, are well marked in this case.

CASE XXIII.

In the evening of September the 12th, 1812, the surgeon with whom I had attended the 14th Case, requested me to visit MRS. H. with him, who was then labouring under the Puerperal Fever. He gave me the following account of her. She was brought to bed of her seventh child two days before, about nine in the morning. During these two days, she had had a copious discharge of the lochia; but, in other respects, remained quite well till the morning of the 12th; when she was seized, about eight o'clock, with a violent pain in the hypogastric region, which she supposed to be in the bowels. This attack continued about half an hour, then ceased for an equal time, and so returned at intervals; but, throughout the day, the paroxysms became more severe, and the intervals shorter. The surgeon had accidentally called upon her at noon; and

supposing from the patient's account of herself that the pain was in the bowels, he only ordered a bolus with fifteen grains of jalap and three of calomel. The pulse was then at ninety.

Four, p. m. He was informed that the pain had increased, and he repeated the bolus with a scruple of jalap. At five o'clock he saw her, and took from the arm nearly fourteen ounces of blood; she then became faint, probably in consequence of being bled in an upright posture, and he thought it right to desist.

Eight, p. m. We saw her together. She looked pale, and her face was covered with a profuse perspiration. She was crying out through pain, which had very short remissions, and left the abdomen extremely sore. Her head was affected with pain, mental confusion, and a considerable degree of vertigo. The tongue was rather white; and the pulse had got up since noon from 90 to 156. The blood which had been drawn, had no crust on its surface; but the crassamentum was very firm. I opened another vein in the arm, and took away rather more than twenty-five ounces of blood. It was my wish to have taken thirty ounces; but a great

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degree of faintness coming on, I relinquished my intention. The pulse came down to ninety soon after the bleeding; and the pain was much diminished. The purgatives had not operated, nor had any stool been procured since the labour. An injection had been ordered before, which having been mismanaged, had produced no effect. Another bolus, with half a dram of jalap and four grains of calomel, was directed to be taken immediately.

Eleven, p. m. The pulse had got up to 134; but the pain had not increased; and, though it still came on at intervals, was short in duration and slight in degree. Since taking the third bolus, she had also taken a dose of infusion of senna; we gave a second dose, and ordered three table spoonfuls of the carthartic solution to be given every two hours.

13th. *Eight, a. m.* She had passed a pretty good night, though without much sleep. The pain had gradually decreased, and had not returned at all during the last hour. She had taken six drams of magnes. sulphas in addition to the other purgatives; but two evacuations only had been produced; which, however, were

very large, and attended with very sensible relief. The pulse was at 124. The solution was ordered to be continued.

Half past Eight, p. m. She had remained nearly free from pain, and the soreness of the abdomen was much diminished. Three evacuations had taken place since morning, the two last of which were quite liquid. Pulse 100. Tongue still white. The secretion of milk had increased in the course of the day; and the breasts had become so full as to require their being drawn, which had occasioned no uneasiness. The skin was cool and moist. The solution was directed to be continued in such quantity as might procure a stool about every four hours.

14th. I was prevented seeing the patient in the morning; but in the evening I found all going on well. The evacuations had been numerous without much medicine. The pain and soreness had entirely gone off, and the pulse was at 88.

After this time my visits were discontinued, and, indeed, they were unnecessary, for the patient had no further complaint.

CASE XXIV.

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Case 24.

November 7th 1812, early in the morning, Mr. ——— called to request my attendance on a poor woman at Armley, whom he had attended in labour, and whom he now supposed to be affected with the Puerperal Fever. She was a stout young woman, unmarried, and had got her bed at nine o'clock in the evening of the 5th; her labour having been natural, but lingering. She had had a pretty good night after her delivery till four o'clock, when she awoke in pain, which did not continue long at that time, but frequently returned during the day. When Mr. ——— called to see her, he found the abdomen tender, and the pulse at 90. He prescribed the cathartic solution for her, which was not sent for until midnight; and then he was informed, that she had much pain and other alarming symptoms.

We arrived at the house at ten o'clock, and learnt that, about five the preceding evening, the pain had suddenly become much more severe and constant than before. It had not been preceded by a complete rigor; but the

patient had felt cold and disposed to shiver, and had afterwards perspired a good deal. She had also a great sense of confusion in her head, which came on about the same time, and continued throughout the night. It occasioned her to talk incoherently; but when addressed she could always give a rational answer. The pain had somewhat abated when we arrived; but the soreness and sensibility of the abdomen were extreme; and the slightest motion of her body was performed with great difficulty. The uterus was evidently enlarged; and pressure upon it was particularly painful. There was no general swelling of the abdomen. The pulse was very hard; but was not so much accelerated as is usual in this disease; it was only at ninety-two.

It was difficult to determine with certainty, whether this attack should be dated from four o'clock in the morning, or five in the afternoon, of the 6th. On the former supposition, the disease had subsisted thirty hours; and even on the latter, seventeen. In either case the loss of time was considerable; and likely to prove of dangerous consequence, unless the disease could be checked by a loss of blood proportioned to the

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urgency of the case; and happily both the constitution of the patient and the state of the pulse were favourable to a large evacuation. Accordingly we took away from the arm, by a very large orifice, fifty-two ounces of blood; no degree of faintness being felt till after the vein was closed. While the blood was flowing she became gradually easier, and was afterwards almost free from pain; the soreness was also diminished. The solution had been taken regularly during the night, but without effect; we therefore gave her a bolus with half a dram of jalap and five grains of calomel, and ordered the solution to be repeated every hour. The pulse after bleeding was at the rate of 140.

I could not visit this patient again till the 10th; but her surgeon favoured me with regular accounts of her progress.

In the evening the pulse was at 120; the tongue was white, and she complained of great thirst; but the pain was inconsiderable. The bowels not being sufficiently open, the purging bolus was repeated, a clyster injected, and the solution ordered to be continued.

On the following day the evacuations were natural and plentiful, all the symptoms were

alleviated, and the secretion of milk had commenced.

10th. I found her perfectly free from all affection of the abdomen, and the pulse was at 92; but the tongue was still a good deal furred. Having been too much purged during the night, she was exhausted; and expressed a great desire for some solid food. She was allowed to have bread-pudding, and a table spoonful of wine in gruel occasionally, when languid. The purgatives were discontinued, and a saline draught given in a state of effervescence.

11th. She was much better in all respects. The tongue was cleaner, and the pulse more calm. I saw her no more; but was informed that she continued to do well.

CASE XXV.

November 9th 1812, Mrs. C———— was delivered of her seventh child, at half past nine in the evening. Her labour was natural and quick, though rather more severe than usual, in consequence of a Fontanelle-presentation.

On the following evening, at half past five, she was attacked with pain in the abdomen,

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Case 25.

which she said was very different from after-pain, and which continued without intermission for half an hour. I saw her soon afterwards; and finding the pulse at 76, and the abdomen free from pain and soreness, I only prescribed the usual purging bolus, to be taken early in the morning; desiring also to be informed if the pain should return.

I was called to her again at ten, *p. m.* The pain had continued to come on at intervals; but since nine o'clock, it had been constant and more acute than before: the abdomen was also extremely sore, and the patient moved herself in bed with great difficulty. She had been alternately chilly and hot, with a gentle perspiration. Her head was free from all morbid affection. The breasts were flaccid, and the lochia had nearly ceased. The pulse beat ninety strokes in a minute, and was hard. I immediately gave the purging bolus, and then took away from the arm, by a large orifice, thirty-three ounces of blood. The blood flowed very quickly, but no faintness ensued; and the pain and soreness were nearly removed. I ordered a second bolus with a scruple of jalap and three grains of calomel, to be given in two hours, and afterwards three table

spoonfuls of the cathartic solution every two hours.

11th. A large evacuation having taken place before the expiration of two hours, the second bolus had not been given; but the solution had been regularly continued. She had had two more liquid stools during the night: but I thought them insufficient, and therefore ordered half a dram of jalap and four grains of calomel, to be taken before I saw her.

Ten, a. m. I visited her, and found that she had passed a restless night; having had a good deal of pain at intervals, though of a kind much less acute than before. The general sensibility of the abdomen was greatly diminished; yet even a slight pressure on the uterus, which was somewhat enlarged and distinctly perceivable in the right hypogastrium, occasioned great pain.

I thought it advisable that she should lose more blood; and therefore took away from the same orifice twenty ounces, which she bore without experiencing any degree of faintness. The soreness and pain immediately declined. I directed a purging injection to be given; and the solution to be repeated every hour.

Three, p. m. She had continued much easier

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since the second bleeding, and had slept comfortably for an hour. The pains still came on at irregular intervals, but were slight. She had had three liquid feculent stools. The solution was ordered to be taken every two hours, or, if a stool should intervene, in two hours after the last evacuation.

Nine, p. m. Three more evacuations had taken place, without the necessity of taking more than one dose of the solution. Slight pains still returned occasionally, and the sensibility of the uterus upon pressure, though abated, was still considerable. Pulse 110. Tongue quite clean. The solution to be continued according to the last direction.

12th. *Nine, a. m.* She had passed a comfortable night, and slept many hours. She had taken little of the solution, but enough to produce three evacuations. The uterus remained rather tender; but the pain had returned only twice during the night, and that in a slight degree. Pulse ninety.

Nine, p. m. Soon after my visit in the morning, an attack of pain came on, which continued with little intermission for two hours, affecting the *left* side of the hypogastrium. On a careful

examination of the abdomen, I found that the tumour which I had before felt on the right side, was now situated on the left, but much diminished in size. It appeared that the patient had been lying some time on her left side, and that the enlarged uterus had consequently changed its situation.* The bowels were quite open; I therefore ordered a saline draught to be taken every three hours, and a dose of the solution occasionally, whenever she should have been four hours without an evacuation.

13th. She had been entirely free from pain during the night, and from this time the pain never returned in any degree. The bowels were kept gently open, and the patient had a good recovery.

CASE XXVI.

On Sunday, November 29th 1812, my father attended MRS. R———— in labour for me, in consequence of my confinement by indisposition. She got her bed between eleven and twelve

* "If the disease be confined to the *uterus*, the seat of the "pain seems to be changed when she alters her position." DENMAN'S Introd. to Midwifery. Vol. 2. p. 464. Ed. 4.

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o'clock at night, and the purging bolus was prescribed on the following day. When visited on Tuesday, she was quite well; but was attacked with the Puerperal Fever at seven o'clock in the evening of that day. As she resided in the country, my father was not informed of her indisposition till Wednesday noon, when he immediately visited her. He found the uterus considerably enlarged; and the abdominal parietes being unusually thin, it was remarkably distinguishable. It was also extremely tender, so that a slight touch with the finger only, occasioned great pain; but pressure on any other part of the abdomen, which was quite soft and free from distention, excited no uneasiness. One bleeding to the quantity of twenty-four ounces, followed by brisk purging, gave entire relief. The tenderness, and, in some degree, the bulk of the uterus, were immediately diminished by the bleeding. The purging was continued a few days and nothing occurred to impede the recovery of the patient.

The circumstance, in this case, most worthy of observation, was the distinct manner in which the seat of the disease was pointed out. Its origin was evidently in the uterus; and its

progress being soon arrested, it proceeded no further. Had the disease proved fatal, its original seat could not have been so clearly ascertained, even by dissection; for before its termination, it must have extended to other parts, especially to the peritoneum.

To the foregoing cases others might be added; but I fear that the patience of the reader may already be exhausted. Enough, I trust, has been said, to fulfil the design proposed in this chapter, viz. to illustrate the character of the disease under consideration; to shew the insufficiency of the means which had been usually recommended for its cure; and to elucidate that method of cure, which proved invariably successful, whenever it was fairly tried.

I shall now conclude the chapter, by giving a connected view of the method of cure, which may be deduced from the foregoing history of the disease.

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Method of Cure.

Many practical remarks having already been made in the course of this chapter, by which the method of cure has been, in a great measure, anticipated, it will be unnecessary to say much on this part of the subject.

In every case of *accouchement*, it was my practice to give a purgative on the day succeeding the delivery; which, if it did not prevent the disease, afforded some advantage in its cure. My usual dose was twenty-five grains of jalap and three of calomel; and its effect, though in general moderate, was sometimes so violent, that I was unwilling to put my patients indiscriminately to the inconvenience of a stronger dose.

Dr. Gordon prescribed the same dose as a preventive, which he gave after the commencement of the disease; yet it must be obvious, that its operation would be much greater in the former, than in the latter case. I was the more reluctant to exhibit so large a dose, before the necessity for it was apparent; because I did not feel such confidence in its efficacy, as that author ascribes

to it;* since some of the worst cases in my practice, occurred after an excessive operation of the purgative.

I have no doubt, however, that the disease was more easily subdued, when the previous evacuations had been large; and therefore feel no hesitation in recommending copious purging, if either the disease should be very prevalent, or, on any other account, an attack of it is apprehended. But, as the operation of purgatives is peculiarly uncertain in the puerperal state, this might be effected, without the hazard of inducing a hypercatharsis, by giving the smaller dose in the first instance, and afterwards some aperient mixture, in divided doses, according to the exigency of the case.

When the disease has actually commenced, the plan on which it must be treated, is well described in my abstract from DR. GORDON's treatise, to which I refer the reader; † and I would further recommend a perusal of the whole chapter of which that abstract forms a part. The method of cure consists in large evacuations by bleeding and purging; and,

* See page 101. † See page 99.

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although other remedies may sometimes be useful auxiliaries, these are indispensable; and they alone will generally be found sufficient, if they are employed in a proper and seasonable manner.

A peculiar excellence of the treatise to which I have so often referred, is, that it prescribes the quantity of blood necessary to be taken, and the period of the disease when it must be taken, in order to effect a cure with any degree of certainty. * These are important points, and have been so much neglected by former writers, as to make their directions on this head, of little practical utility. For the cautions and limitations with which the recommendation of this remedy has been clogged, have a tendency either to prevent its use altogether, or to render it ineffi cient. But, though I found great advantage from the rules laid down by DR. GORDON; yet it is incumbent upon me to say, that they were not always infallible, either as to the quantity of blood which was necessary for the cure, or the

* "I have both limited the quantity of blood necessary "to be taken away, and fixed the time when the taking "away of that quantity will certainly cure."—GORDON on the Puerperal Fever. Preface, p. viii.

time within which it should be taken. He concludes one part of his observations with these words: "Thus, I found that twenty-four "ounces of blood, taken away at one bleeding, "within six or eight hours after the attack "of the disease, together with a single purga- "tive, never failed, at once, to cure the Puerpe- "ral Fever. *" Now it has appeared in the 13th Case, that twenty-six ounces of blood, taken within six hours of the attack, with the exhibition of strong purgatives, failed to cure the disease; and in several others, though the recovery of the patients happily prevented a similar proof of inefficiency; yet I had good reason to conclude, that a loss of no more than twenty-four ounces would have proved unsuccessful. Thus, in the 20th Case, thirty ounces of blood were taken within four hours of the attack, and a purging soon excited; yet the pain returned, and was not removed until fifty-one ounces had been lost; and even then, the pain was renewed by a very slight cause, and required a further loss of blood.

In the 25th Case, thirty-three ounces were

* GORDON on the Puerperal Fever, p. 84.

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taken within five hours; yet on the following day, the disease was found to be but imperfectly subdued. If it be supposed, that after the first bleeding, purging alone might have completed the cure in these cases; it is at least evident, that the disease was not removed *at once;* and I cannot believe that a repetition of the bleeding was improper, or that it could safely have been omitted.

When a period of twelve hours or more had elapsed, the disease seemed to require still larger bleeding. In the 21st Case, after a lapse of thirteen hours, the taking away of forty ounces at once did not prove effectual without an additional loss of blood, although the symptoms were not, at the time of the first bleeding, particularly urgent; and in some others which I have not related, after the evacuation of thirty ounces or more, it was necessary to repeat the bleeding to the quantity, in the whole, of fifty or sixty ounces.

Of the time of bleeding DR. GORDON further says; "If called to a case within twelve hours "after the attack, I insisted on bleeding the "patient, and promised for its success; but if "at a later period, viz. from twelve to twenty-

" four hours after the attack—I thought it incum-
" bent on me to propose it as the only effectual
" remedy, but I neither insisted on it, nor pro-
" mised for its success.*"

I apprehend that no precise limit can be fixed, as the latest period of the disorder, when bleeding may be successfully used; for that must depend on the rapidity of its progress, and will therefore vary in different cases. The disease will often prove fatal in forty-eight hours, sometimes in twenty-four, and I have recorded one instance of its fatal termination in less than eighteen hours. Now it is evident, that, in all these cases, the loss of time must have been of the utmost importance; and it is not perhaps saying too much, that a delay of ten or twelve hours in the first case, and of four or five in the last, might have been irretrievable. On the other hand, I have known bleeding successful in a few cases, in which a delay of more than twenty-four hours had been incurred. In the 24th Case, it is probable that the disease had commenced thirty hours before the bleeding; and in the 22nd, thirty-nine hours, even if the attack

* Treatise on the Puerperal Fever, p. 92.

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be reckoned only from the accession of pain; but forty-eight, if it be reckoned, as in my my opinion it ought to be, from the shivering. I saw two other cases, which were also treated with success, after a loss of about twenty-eight hours. In these, the disease had made greater progress before the bleeding, than in the two former; the abdomen was more affected, and the pulse more weak and frequent; and they were cured with much difficulty.

While, therefore, we are fully aware of the danger of delay, and avoid it by all means in our power; yet, since we cannot ascertain the period when bleeding would be unavailable, we should not too soon be discouraged from the trial of it; but may venture to recommend its use, till there is reason to believe, that effusion, suppuration, or gangrene, has taken place.

In conformity with these ideas, I took great pains to instruct the nurse, or some intelligent female attendant, in the symptoms of the Puerperal Fever; and laid a strict injunction on her to send for me, on the first appearance of those symptoms, by day, or by night.

When I was called at an early period, I seldom took away less than twenty-four ounces of blood

at first; unless some peculiar delicacy of constitution (as in the 17th Case), or an excess of the previous evacuations, forbad it. And if the delay was protracted to eight or ten hours, or the symptoms were unusually severe, a larger quantity, to the extent of thirty, forty, and in one instance more than fifty ounces, in proportion to the urgency of the symptoms, and the loss of time.

If the pain and soreness of the abdomen are not removed, or very materially alleviated, in six hours the bleeding ought to be repeated; nor should a considerable degree of faintness, or even a deliquium, make us suppose, that further bleeding is either unsafe or unnecessary. In short, I know not from any experience of my own, that scarcely any other limit should be put to the quantity of blood, than the removal, or considerable diminution of the pain; provided all that is requisite, be drawn within twelve hours of the first evacuation.

If the disease is clearly ascertained, no other consideration is of much importance. The state of the pulse affords little information, either as to the propriety of bleeding, or the quantity of blood proper to be taken away; and if we are

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deterred either by the apparent weakness of the patient, by the feebleness and frequency of the pulse, or by any other symptom, from bleeding copiously, we shall generally fail to cure the disease.

Immediately after the bleeding, the most speedy and effectual means should be adopted for opening the bowels. I usually gave half a dram of jalap, and three or four grains of calomel, in a bolus; and directed that after a short interval, three table spoonfuls of the cathartic solution should be taken every hour or two, till copious evacuations should be procured. This method seldom failed quickly to excite a diarrhœa; and the solution, which is a good febrifuge, was afterwards continued in such quantity, as might produce an evacuation once in three or four hours. * The purging was maintained for

* DR. ARMSTRONG recommends calomel as a purgative, in the dose of a scruple or half a dram; but he observes, "It is merely as an aperient that I consider it serviceable in "any acute disease, and I have been led to prefer it to any "other, only because it is more certain and effectual in its "operation. (*a*)." Having found no want of efficacy in the

(*a*) Facts and Observations &c. p. 72.

two or three days, or longer if necessary; and when the symptoms had entirely subsided, it was suffered gradually to decrease. If the bowels were costive, an injection was often attended with good effect, as it quickly evacuated the contents of the large intestines, and expedited the operation of the purgatives.

I entirely coincide in opinion with DR. GORDON, when he says, that "the purging is to be "early excited, and to be continued without "intermission, till there be a complete termina- "tion of the disease.*" But I can scarcely reconcile this advice with the account of his practice, as before quoted: "Every night, I "administered an opiate, in order to give a "respite to nature, and strength to the patient, "to enable her to bear the evacuations, which

purgatives which I used (for the proof of which I may refer, not only to my general success, but especially to the expedition with which the disease was usually cured), I feel no sufficient inducement to change them for one, which is sometimes attended with unpleasant consequences, without an equivalent benefit. I am disposed, however, to believe, that a larger proportion of calomel than I have commonly prescribed, might be employed with advantage.

* Treatise on the Puerperal Fever, p. 86.

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"she must necessarily undergo the ensuing day.*"

I frequently tried opiates in this epidemic, but, I think, never with advantage. The respite which they afforded was but an insidious truce; and rather tended to prolong the disease. There was, perhaps, no Case in which they were more likely to be serviceable than the 22nd, where the patient was delicate, and the disease long protracted; yet I never prescribed them in that Case, without manifest disadvantage. Their apparent utility was particularly striking in the 3rd Case before I had adopted the practice of bleeding; but the termination of the disease leads me to conclude, that the benefit arose from the purging alone; that the comfortable repose procured by the opiates, was deceitful; and that the interruption occasioned thereby to the purging, was injurious. It became my practice, therefore, to continue the purging literally *without intermission*, and without the interposition of opiates; and to this, in conjunction with more copious bleeding, I attribute the more speedy termination of the disease. For instead of its being brought to a close, as DR. GORDON says it generally happens,

* Treatise on the Puerperal Fever, p. 88.

on the fifth day; in a very large proportion of my Cases, it was completely removed within two days. * Indeed I recollect no Case, except the 20th, in which the disease was not subdued within two or three days, when the proper means were early employed.

* DR. ARMSTRONG also says, that the patients treated as he recommends, "were usually convalescent on the fourth or fifth day. (*b*)"

I have already expressed my belief, that the Epidemic at Leeds was more violent than that at Aberdeen; and perhaps the same observation may be applicable to the fever of which DR. ARMSTRONG treats. He remarks, "This complaint, "when not arrested by art, ran its course in about five days, "and in one case, in a much shorter time. (*c*)" It is probably to this case he alludes, when he says; "In one robustly "formed young woman— the whole term occupied from the "commencement to the fatal close of the Fever did not "exceed forty-eight hours. *(d.)*" Now it was by no means uncommon for the fever at Leeds, to finish its course in forty-eight hours; and in many cases, it proved fatal in a much shorter period. If then my opinion be correct, that the fever under consideration was more malignant than those to which I have just alluded; and if, notwithstanding, its cure was more quickly effected; may I not fairly conclude, that something in my method of treatment conduced to this end.

(*b*) Facts and Observations, &c. p. 73. (*c*) Ibid. p. 10. (*d*) Ibid. p. 28.

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If an opportunity be afforded of using the appropriate remedies at the commencement of the disease, bleeding and purging alone will soon overcome it, and no other means will be found requisite; but circumstances may occur, in all its stages, in which purging or emollient injections will prove beneficial. Fomentations of warm water, if properly applied, are soothing, and I have never seen them do harm. Blisters are inconvenient, and will seldom be necessary; but I have sometimes thought them useful, and never detrimental, except the disease be advanced to the last stage; when they can only add to the general irritation, without any prospect of advantage. A saline draught, taken in a state of effervescence, is refreshing to the patient; and, as it coincides with the intention of the principal remedies, may be given, when there is opportunity, between the exhibition of the purgatives.

If these means should fail to cure the disease, from being employed either too late, or in an improper manner, grateful cordials may be given in its latter stages to alleviate the distressing feelings of the patient; but cordials or tonics can afford no other advantage. The mischief which has taken place in the cavity of the abdomen,

whether by extravasation, suppuration, or gangrene, renders the disease incurable; except, in the two former cases, by some extraordinary effort of nature, of which Dr. Gordon has related three instances, where the confined fluid made its way by a direct outlet, in two at the umbilicus, and in the third by the urethra.

Purging, however, is proper in every stage of the disease, unless gangrene has actually taken place; and should be excited, if possible, when bleeding has become inadmissible. For even if some degree of effusion should be suspected, the morbid fluid may possibly be absorbed; and nothing is more likely to promote its absorption, and to carry it off through the medium of the circulation, than a discharge from the intestines.

This is the method which was employed for the cure of the epidemic Puerperal Fever at Leeds, with uniform and complete success, whenever it was fairly tried. It is possible that epidemics of this fever may differ in their nature; but it is evident that those of Aberdeen and Leeds were similar; * and in every case analo-

* To which may now be added the epidemic of Sunderland.

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gous to them, a similar mode of treatment may be confidently recommended.

I wish the reader to judge for himself of the efficacy of that which has just been described; and with this view, I have already given some account of all the unsuccessful cases which came under our care. It has been stated, that, before the plan of bleeding was adopted, of fourteen patients who were attacked with the disease, only three recovered; and I have now to add, that after the 9th Case (the 15th in my practice), in consequence of which I determined to use bleeding in addition to purging, of thirty-three patients whom we attended, only three died; the last twenty-six having recovered in uninterrupted succession. *

I need not repeat what has been said of the three fatal cases to which I beg leave to refer the reader; † but, I trust, it has appeared, that the want of success in them did not indicate either the impropriety, or the insufficiency, of the

* Copious bleeding was used in all these cases excepting one, which was rather slight, and was cured by purging alone.

† See Cases xi. xiii. xv.

treatment which I finally adopted, and which I now recommend. *

* Since my return to Leeds, in September 1814, I have seen four cases of Puerperal Fever, which have all terminated favourably. If these be added to the above statement of my success; and if it be thought allowable to omit the case of the consumptive patient (in which it is not easy to decide, whether or not the Puerperal Fever alone would have proved fatal), the proportion of unsuccessful cases will be two in thirty-six; and of this number, the last thirty afforded no instance of failure in the treatment.

CHAPTER IV.

GENERAL REMARKS ON PUERPERAL FEVER.

CHAP. IV. General Remarks.

IT is an observation of DR. CLARKE when speaking of the Puerperal Fever, that "practi-"cal men—have persuaded themselves, that the "form of disease, which respectively they may "have most frequently met with, is the only "one.*" Now, though I can claim no exemption from a bias so common, and so natural, and may possibly fall into this error; yet it is a question too important to be passed over in silence, whether the various forms under which the disease has been described, are founded on an essential difference in its nature. For, as it has been supposed, that the Puerperal Fever assumes a great variety of modifications, which require a corresponding variety in its treatment, it will

* Practical Essays, p. 54.

prove but little interesting to know, that a certain cure has been found for a particular epidemic of the disease; unless it can also be made to appear, that a similar treatment is applicable to the Puerperal Fever in general.

The distinction which first claims attention, because it is supposed to be the most obvious and the most important, is that between inflammation of the uterus, or peritonæum, and the Puerperal Fever more strictly so called: the two former diseases having been considered as truly inflammatory, and the latter, as a species of low fever.

After reading the preceding account of the Puerperal Fever at Leeds, I think no one will venture to deny, that the disease was highly inflammatory; for the cure consisted in copious bleeding and purging, and all other means were ineffectual. But perhaps those who maintain that Puerperal Fever is always a modification of typhus, may be disposed to doubt, whether the disease in question was a genuine Puerperal Fever, or whether it might not approach nearer to inflammation of the uterus and peritonæum. On this point I might rest satisfied with referring to the history and symptoms of the disease,

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as already detailed; leaving it with the reader to compare them with other descriptions of the Puerperal Fever; and confidently relying on their general coincidence. But it may be further remarked, that its prevalence as an epidemic seems (according to the judgment of authors) to determine its real denomination. For it is stated to be a distinguishing characteristic of inflammations of the uterus and peritonæum, that they never prevail epidemically; and, as I am not aware that this opinion has ever been disputed, a single quotation in confirmation of it may suffice. I will take it from DR. THOMAS's work in preference to any other, because that work comprizes an epitome of "Modern Practice."* In treating of inflammation of the uterus, he says, "It "never prevails as an epidemic, like puerperal "fever, for which it has probably often been "mistaken.†" He speaks to the same effect of the peritonitis in the puerperal state; "The "disease has by some authors been called puer- "peral fever; but this seems improper, as it "neither is attended with contagion nor ever "prevails epidemically.‡" If these observa-

* See also CLARKE's Practical Essays, p. 97. † Modern Practice of Physic, p. 617. Ed. 3. ‡ Ibid. p. 620.

tions are correct, it will appear that the disease which I have described, was a genuine Puerperal Fever; and it has been abundantly proved to be an inflammatory disease; consequently it must be allowed, that the Puerperal Fever, in some instances at least, so far resembles inflammation of the uterus and peritonæum, as to require a similar treatment—similar in its kind, though more prompt and vigorous in its execution.

It still remains to be considered, and a most important consideration it is, whether the Puerperal Fever is essentially the same disease under all the different appearances which it assumes. That is, whether it is so modified by accidental and concomitant circumstances, as to vary only in the degree of its violence, the rapidity of its progress, and the fatality of its result: or whether it is in fact a disease radically different, or even diametrically opposite, according to the circumstances and occasion of its rise and progress.

That such contradictory opinions of it have been maintained, admits of easy proof. One author, who believes that the Puerperal Fever is always of the same nature, having the same

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variation in its early symptoms, as occurs in the plague or the common infectious fever, observes ; "That in all the histories which have been "given of this disease, from the days of "Hippocrates—to the present time, no other "difference (than a variety in the degree and "violence of the symptoms) can be discovered. "If then it be allowed, that the disease is in its "symptoms and other respects pretty nearly the "same in every instance in which it occurs, one "material step will have been gained towards "facilitating the explanation of what its true "nature consists in ; and, in order to simplify "this matter still further, I will venture to as- "sert, that—it is, in reality, no other than the "common infectious fever, complicated with a "more or less extensive inflammation of the "*peritonæum.**"

Another says, that "the Puerperal Fever "is always inflammatory at the beginning, "and becomes putrid only in its progress.†" And, "That this putrescency is only the effect, "or consequence, of previous inflammation neg- "lected, or improperly treated.‡"

* WALSH on the Puerperal Fever, p. 13. † GORDON on the Puerperal Fever, p. 112. ‡ Ibidem, p. 54.

Now, if the disease were really so different, as in these passages it is described to be; varieties so opposite ought not to be treated of under the same name. But, while I acknowledge that my own experience may possibly give an undue bias to my judgment, I must still venture to express my conviction, that the latter quotation furnishes the true solution of the difficulty; and that it "accounts for the many mistakes "of physicians, with respect to its nature, "who have taken the effects, or consequence, "for the cause, and confounded the different "stages of the disease.*"

I will proceed to offer some of the reasons, which tend to confirm me in this opinion of the Puerperal Fever.

The very definition of the disease, viz. fever in child-bed, accompanied with *pain* and *extreme soreness* in the abdomen, which, I believe, accords with every description that has been given of it, implies the existence of inflammation; nor does any one deny its existence.† And

* GORDON on the Puerperal Fever, p. 54.

† "When I find a quick pulse and febrile heat accom-"panying an inactivity in the breasts, at the time the milk "should come, or even a quick pulse with pain resembling

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what is it that destroys the life of the patient, but the effects of inflammation—extravasation, suppuration, or gangrene? These are the constant and most fatal consequences of the disease. Did I wish to describe the symptoms of inflammation, I could not employ stronger language than is furnished by an author, just quoted, who maintains that Puerperal Fever is always a form of typhus. "The pain, after a few hours conti-
" nuance, became so severe, that the generality
" of the patients lay on the back, and could not
" bear the weight of even the sheets; and in
" the woman who was attacked so soon after
" delivery, it was such as to deprive her of the
" power of distinct articulation; so that she
" lay uttering a hideous interrupted cry, but
" totally incapable of answering any question.*"

But this author, and others of his sentiments, allow, that the disease at its commencement approaches, in some instances at least, to the type of an inflammatory fever; yet they suppose that the speedy change of its symptoms to those

" after-pains, I am always apprehensive of danger: for
" these symptoms, and inflammation, are inseparable" &c.—
KIRKLAND on Child-bed Fevers, p. 79.

* WALSH on the Puerperal Fever, p. 7.

of putrescence, forbids the use of the lancet, even in its first stage. And when I recollect the early and rapid transition of the disease from inflammatory action to a state of sinking; it does not surprise me, that so many writers have drawn the character of the disease from its last stage, rather than the first. We are told that "after a few days continuance—the fever "often acquires a putrid tendency;*" but I have given instances of a change in the symptoms taking place in a few hours. So short indeed is generally the duration of the first stage; so soon is it succeeded by symptoms of debility; that this period has been comparatively overlooked: and thus the only time of determining the real nature of the disease, and of treating it successfully, has been lost. Here, in my opinion, has been the true source of error.†

* THOMAS's Modern Practice of Physic, p. 625. Ed. 3.

† DR. ARMSTRONG has marked the character of the disease in its first and second stages, more distinctly than any other author; which I consider as a particular excellence of his work. But I doubt whether he has not, in some respects, too strictly defined the limits of the first stage. If, for instance, a practitioner inexperienced in the disease, should be led by the frequency or weakness of the pulse, to conclude

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It would not be difficult to shew, that those practitioners who imagine the Puerperal Fever to be a modification of typhus, consider the inflammatory affection of the abdomen as symptomatic—not the cause, but the effect of the fever; which latter opinion, indeed, seems almost a necessary consequence of the former.* Now, were this the case, it might reasonably be expected, that a typhus-fever existing in the puerperal state, would generally, if not always, produce inflammation of the abdomen. But DR. GORDON informs us, that he has attended "an "immense number of pregnant women affected "with fevers occasioned by infection; and the re-

that the disease had advanced into its second stage, he might commit a fatal error. I refer the reader to my 3rd, 8th, 12th, and 23rd Cases; in which the pulse ranged from 140, to 160, in the first stage. I have also frequently found "swimming of the head, and confusion of thought," very early in the disease; and sometimes a dry brown tongue and sordes of the teeth attend the first stage, if that be supposed to continue till grangrene, suppuration, or effusion has taken place.

* "The inflammation of the intestines and *omentum* found "after death, are to be considered rather as the effects "than the causes of this Fever." WHITEHEAD'S Notes on the Report of M. DOULCET'S Memoir &c. p. 26. See also CLARKE'S Practical Essays, p. 155.

" sult has been, abortion in the early part, and " labour in the latter part of pregnancy. Which " events, so far from proving fatal, for the most " part brought the disease to an immediate ter- " mination, the flooding of abortion, and the " lochia of child-bed proving critical.*"

Dr. Kirkland also relates an interesting case of a young woman, who, after delivery, was put into a bed, from which her sister labouring under a slow nervous fever, had just been removed. She took the fever, " soon became delirious, and " died on the twelfth day from her delivery; but " she had neither diarrhœa, pain, soreness, or " swelling in any part of the abdomen.†"

The bad success attending the treatment of the disease as a low fever, affords no slight presumption that its nature has been mistaken.‡ Perhaps there are few accounts of Puerperal

* Gordon on the Puerperal Fever, p. 68.

† Treatise on Child-bed Fevers, p. 85 & seq.

‡ " Were I inclined I might here also avail myself of the " great candour of those authors who have treated puerperal " fever as a putrid and typhoid distemper, their impartial and " disastrous reports forcibly demonstrating that cordials and " stimulants answer no good purpose." Dr. Armstrong's Facts and Observations, &c. p. 48.

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Fever, in which the symptoms of inflammation were less distinctly marked, or those of putridity more evident, than in "the Low Fever of Child-bed" described by DR. CLARKE :* accordingly he recommends the bark in large doses, with such other means "as have a tendency to sup-"port the strength and diminish the irritability;" but he gives us no reason to suppose, that his success was great; nor does he adduce any instance in which the disease, when actually formed, was cured by this treatment.

It is material to my present argument to observe, that the Puerperal Fevers of Aberdeen and Leeds, which were in the end so unequivocally proved to be inflammatory, were nevertheless supposed by some to be the low fever of child-bed, and were treated as such. Hence

* Evidences of inflammation were, however, not wanting in this epidemic; for though DR. CLARKE says there was not much sign of inflammation in the appearance of the viscera on dissection, there was usually a large quantity of fluid in the abdomen; and the surfaces of the viscera and of the peritonæum were covered with a crust resembling coagulable lymph. The quantity, solid and fluid, was often prodigious in a very short time.

I know not what but inflammation, could produce these appearances.

the conclusion is strengthened, that they were in fact the same disease which so many writers have considered as a putrid fever; and that the Puerperal Fever is always essentially the same disease, "inflammatory at its beginning, and "putrid only in its progress."

It is not, however, to be denied, that there is a vast difference in the Puerperal Fever at different times, and in different situations and circumstances. In some cases, it appears like a phlegmonous inflammation; its progress is comparatively slow, and it will admit of bleeding for some days after its commencement: in others, it destroys with more rapidity and certainty than the plague. But all its varieties, so far as I can judge from my experience and reading, may be reduced to two denominations, the *sporadic*, and *epidemic* Puerperal Fever; in which I include inflammation of the uterus and peritonæum. However nosologists may think proper to describe the disease according to its seat &c, I am persuaded that no other distinction is of any real practical importance. Nor is this of any further consequence, than that the epidemic disease requires more prompt attention, and more vigorous treatment. The means of cure

are precisely the same in both; but in the latter their measure is greater and less limited, and the period within which they must be employed, is far more circumscribed.*

It may be asked, if the Puerperal Fever is always to be regarded as an inflammatory disease, how does it happen, that such extreme fear and caution have prevailed respecting the use of the lancet; and that, with those who have most strongly recommended bleeding, it has been attended with so little success? The question has,

* Fevers may occur in child-bed of a very different character from what has now been described, and from what is commonly called Puerperal Fever; and in such, a different treatment will be requisite: for instance, the Puerperal Fever of Derbyshire, as described by DR. BUTTER. He tells us, that "Venesection is never to be used in this fever, except it be "complicated with inflammatory symptoms. *(a)* The Puerpe- "ral Fever, he says, is one of those disorders, that seldom or "never prove fatal till they have degenerated into a more "complicated malady. *(b)*"

These sentiments are so inapplicable to other accounts of Puerperal Fever, and his treatment so inadequate to the cure of that fatal disorder, that, in my opinion, though the disease was a fever in child-bed, it ought not to be called *the Puerperal Fever.*

(a) BUTTER on Puerperal Fevers, p. 26. *(b)* Ibid. p. 33.

in effect, already been answered; and the truth is, it has seldom been fairly tried. Either the quantity of blood taken away has been too small, or the time when it was taken, too late, to be of any use; and thus the principal remedy of the disease, has been brought into disrepute.

A few quotations, shewing the manner in which bleeding has been spoken of, may serve to illustrate this remark.

"Though this disorder is of the inflammatory "kind, it seldom will bear to be treated as such; "for which reason, unless the pains are very "great, we should not bleed, at least for the "first eighteen or twenty hours.*"

"When there is much pain, hardness, and "swelling in the belly—bleeding may be neces- "sary. If the hemorrhage has been violent at "the time of delivery, bleeding is improper.†"

MANNING "thinks he may safely affirm from "experience, that for one who will be benefited "by large bleeding, a much greater number "will be injured, and that even almost ir- "retrievably. That, indeed, he is so sensible of

* COOPER's Compendium of Midwifery, p. 219.

† MILLAR on the Puerperal Fever, quoted from HULME's Treatise, p. 142—3.

"this fact, that for several years he has seldom "advised bleeding, except in women of plethoric "constitutions, and in whom the signs of inflam- "mation rose high: nor that even in such "patients ought it to be repeated without great "caution, and the existence of strong indica- "tions.*"

"After the most careful observation, the event "has so often proved to me, that large bleedings "weaken the sick, without proportionably "lessening the disease, that I have for a long "time never taken away blood in any quantity.†

"I had very early my doubts regarding the "propriety of bleeding in general, in this disease, "and am still of opinion that it is not the most "natural, safe, or effectual remedy in this case.‡ "In general however, it will be found necessary "to take away some blood in the beginning, "and we must be guided as to the quantity, by "the strength of the patient, and by the violence "of the symptoms.§"

* Quoted from HULME on the Puerperal Fever, p. 145.

† DENMAN's Essays on the Puerperal Fever, and on Puerperal Convulsions, p. 23. 1768.

‡ DENMAN's Essay on the Puerperal Fever, p. 18. Ed. 2.

§ Ibid. p. 19. Perhaps I should apologize for quoting opinions of this author which he has long since relinquished;

"If the pain of the hypogastric region should "be accompanied with violent stitches in the "sides, or over the pit of the stomach, and a "pulse that resists the finger pretty strongly, "then bleeding would be highly necessary. "The first quantity should rarely exceed eight "ounces, and in about six or eight hours after- "wards, if the pulse still preserve its strength, "and the pain continue, the arm should be tied "up again, and a second quantity drawn from the "same orifice.* If I must err—let it be rather "in point of bleeding too little, than of bleeding "too much, and in making up the deficiency by "evacuations by stool.†"

but they would, no doubt, have their influence on the treatment of the Puerperal Fever, so long as they remained uncontradicted. His later sentiments so exactly coincide with my own, that I am glad to avail myself of their sanction.

"I am now convinced, he says, by manifold experience, "that my reasoning was fallacious, and my fears groundless; "and that what I had considered as proofs of the insuffi- "ciency or impropriety of bleeding in the inflammatory puer- "peral fever, ought in reality to have been attributed to the "neglect of performing it in an effectual manner, at the very "beginning of the disease." Introd. to Midwifery, vol. 2. p. 480.

* HULME on the Puerperal Fever, p. 74. † Ibid. p. 77.

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"When the patient is young and plethoric, "the pulse full, the thirst great, the skin dry, "and the urine high coloured; she may lose "eight or ten ounces of blood, in the beginning, "with great safety and advantage, and a smaller "quantity may afterwards be repeatedly taken "away, in proportion to the violence of the "symptoms.*"

"In the beginning, an inflamed *uterus* must "be treated like other local inflammations, "which are cured by dispersion. But the mis- "fortune is, that neither bleeding or purging "can be used in their full force in child-bed "fevers.†"

"It is of the utmost importance in the cure "of this disease, to distinguish between the *true* "*inflammatory*, and the *putrid Puerperal Fever*. "In the former, a prudent use of the lancet will "doubtless be of use; whilst in the latter, it will "generally be attended with the most fatal con- "sequences. The latter likewise, is that which "most frequently occurs.‡"

"LEVRET observes, aphorism 995, that he

* LEAKE on the Child-bed Fever, p. 121. † KIRKLAND on Child-bed Fevers, p. 94. ‡ WHITEHEAD'S Notes on the Report of M. DOULCET'S Memoir, p. 33.

"had never seen one woman escape after "bleeding.*"

"Venesection—is seldom proper, and still "more rarely necessary; and, if at all admissible, "it must be at a very early period of the disease, "in strong, robust patients, where the Puerperal "Fever appears as a *sporadic disease* &c.†"

Dr. Clarke says he has found by experience, "that the treatment, which is proper in "inflammation of the uterus or peritonæum, or "both, connected with an inflammatory state of "the system, is exceedingly detrimental in the "epidemic disease, &c.

"In the first place, let me caution practitioners "not to be misled by the tumefaction of the "abdomen so as to employ the lancet with the "expectation of curing a supposed inflammation. "Bleeding from the system has always been "attended with manifest disadvantage, although "it has been tried in patients who have been "apparently strong and plethoric before.‡"

Such are the sentiments and directions of

* Whitehead's Notes on the Report of M. Doulcet's Memoir, p. 27.

† Walsh on the Puerperal Fever, p. 40.

‡ Practical Essays, p. 158, & seq.

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many authors of celebrity respecting the use of the lancet in the Puerperal Fever. The caution and timidity of those who are most favourable to bleeding, are very remarkable; for DR. LEAKE, who repeatedly and particularly recommends "*early and copious bleeding*, and the "*antiphlogistic method*—in preference to every "thing which he has hitherto seen tried in the "cure of that fatal disease,*" mentions ten ounces, as the largest quantity which he took away at one time.

If the plan which I have advised, be well founded; and of that its success is the proper criterion; it is evident how inconsistent with the nature, or inadequate to the exigency of the case, the opinions and directions above quoted must be. And we may justly conclude from the language of these quotations, that in the practice of none of these authors, had bleeding a fair trial.

I would particularly call the attention of the reader to one circumstance; viz. that the *epidemic*, called by some the putrid, Puerperal Fever, in which bleeding is represented as peculiarly

* Practical Observations, p. 147.

hazardous, or totally inadmissible, was the species of disease, which, in my practice, required much larger bleeding than the *sporadic*, or, as it has been called, the true inflammatory Puerperal Fever.

I cannot dismiss this part of the subject, without adverting to an argument against bleeding which appears specious, and has been urged with some confidence. It has been affirmed, "that those women who have lost much blood "at the time of delivery, are more liable to this "disease than others, and that it is much more "fatal to them.*" Whether the former part of this quotation be true, or not, I will not determine; but the latter is clearly contrary to my experience. "It is allowed," however, "that these fevers "sometimes arise even after large uterine effu-"sions;" hence it is asked, "Ought we then to "expect to cure a disorder by bleeding, which "bleeding would not prevent? It is a maxim "in physick, that whatever remedy will cure, "will prevent a disorder.†"

The same argument is urged by another

* DENMAN on the Puerperal Fever, p. 18. Ed. 2.
† WHITE on the Management of Pregnant and Lying-in Women, p. 217.

author. "It is an axiom in physic," says he, "that a remedy which cures any disorder; will "always prove a prophylactic against it; and "therefore if bleeding were the proper cure in "the Puerperal Fever, the disease ought to have "been prevented by a large evacuation of blood, "when that happened previous to its seizure.*"

I am not able to answer this reasoning in the way which DR. GORDON has answered it; who says, "For my part, I found, that large uterine "effusions invariably prevented the epidemic "Puerperal Fever, which I have described:†" but my practice affords an answer equally satisfactory. Without questioning the propriety of adopting axioms in physic, or arguing the fallacy to which the one now mentioned may be liable in its application; I am ready to allow, and indeed have already shown, that a patient may lose a much larger quantity of blood in labour than would have been necessary to cure the disease, without preventing the attack; nevertheless bleeding was found, even under these circumstances, a suitable and effectual remedy.

* MANNING on Female Diseases, p. 371.

† GORDON on the Puerperal Fever, p. 111.

I have related two cases* in which this happened to women of constitutions remarkably delicate, and unfavourable to evacuations; yet such are the cases in which the Puerperal Fever has been considered as the most dangerous, and bleeding as peculiarly improper. We may therefore regard them as, of all others, the most decisive test, of the nature of the disease, and of its appropriate remedy.

The Seat of the disease has been the subject of various opinions; and some importance may seem to be attached to the question, since it is supposed to involve the true character of the disease.

"It is remarkable in the accounts of this "disease," says one, "that when it has appeared "in its inflammatory character, the uterus has "been found affected with inflammation, and "when it has assumed its putrid form, the uterus "was in its natural state; from which we may "justly conclude, that the *inflammatory Puerpe-* "*ral Fever* is generally, if not constantly, owing "to an inflammation of the uterus; but when it

* Cases xii, xvii.

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"appears as a putrid disease, it is owing to very "different causes.*"

Another says, "The fever brought on by an "*inflammation* of the *uterus*, has often been "confounded with the Child-bed Fever; but "those diseases are very essentially different:" yet this author adds, "they both require the "same method of treatment.†" A distinguishing mark which he proposes respecting these two diseases, is, that, in the former, "the head "is affected with pain, and a *delirium* usually "attends the fever; but on the contrary, "in the Child-bed Fever, the head is seldom "disordered, nor does a *delirium* usually attend.‡" It is remarkable, however, that in thirteen cases of Child-bed Fever which he relates, eleven were attended with pain in the head, most of them to a violent degree, and four with delirium; one only, out of the thirteen, being free from both. §

* WHITEHEAD'S Notes on the Report of M. DOULCET'S Memoir, p. 23.

† LEAKE on the Child-bed Fever, p. 78. ‡ Ibidem.

§ Fourteen cases are related; but in one of them (the 13th.) the symptoms are so briefly noticed, that no conclusion can be drawn respecting those which he mentions as characteristic.

Drs. Denman and Kirkland consider the Puerperal Fever as originating most commonly in the uterus : Drs. Hulme and Leake found the omentum and intestines chiefly affected, but especially the former. Dr. Gordon says, that the peritonæum and all its productions are "equally and indiscriminately affected." In two of his three dissections, not only did the peritonæal covering of the uterus partake of the general inflammation, but its substance was enlarged; and the right ovarium (that in which impregnation had taken place) was found in a state of suppuration. In the third case, the disease had been almost subdued by the evacuations employed, and the appearance of inflammation was consequently slight; but the same ovarium was enlarged, and was approaching to a state of suppuration.

In one of the earliest accounts which we have of an epidemic Puerperal Fever, the uterus is said to have been affected with inflammation in common with the stomach and intestines, and the ovaria to have frequently suppurated.*

* "L'estomac, les intestins, & la matrice bien examinés, "paroissoient avoir été enflammés &c. Dans plusieurs de

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It is not in my power to throw any light on this subject from actual dissection; nor, indeed, does an examination of the body after death shew decidedly, which was the part first attacked by the disease. For, wherever the inflammation begins, it rapidly extends to all the contents of the abdomen; so that, when it has proved fatal, no peculiar appearance may be found, which shall certainly distinguish the part primarily affected. But in the epidemic Puerperal Fever at Leeds, it was more clearly demonstrated, than it could have been by dissection, that the disease generally originated in the uterus. For that viscus was often considerably enlarged, and shewed an exquisite sensibility upon pressure, while the rest of the abdomen remained perfectly free from pain or soreness. And although the pain was not always referred, in the beginning, to the region of the uterus; but in one instance, to the pit of the stomach, and in others, to different parts of the abdomen; yet this affords no proof, that the inflammation did not originate in the uterus;

" ces femmes, les ovaires paroissoient avoir été en suppura-
" tion." Hist. de l'Acad. Royale des Sciences l'an 1746. p. 160.

for sympathetic affections of the same kind are well known to exist in the strangulated hernia, where there can be no dispute about the original seat of the disorder.*

Upon the whole, then, we may conclude, from what has now been remarked, and from various well authenticated dissections, that a genuine Puerperal Fever may arise from an inflammation of the uterus, as well as from inflammation in other parts of the abdomen; and that a variety in the part which is primarily affected, does not essentially affect the character of the Fever.

It is a question on which the best writers are still divided in sentiment, whether the Puerperal Fever be an infectious disease, or not. I have hitherto said nothing on this point, because I feel much difficulty in coming to any satisfactory decision upon it. It might be expected, that

* "He continued all day to complain of much uneasiness "at his stomach.——Knowing that he was subject to a "hernia, I inquired if it was now prolapsed. He seemed at "first not to have thought about it; but upon my examina- "tion, he acknowledged that it had been down all the day, "though he had no pain in the tumour." Case of Strangulated Hernia. HEY's Surgery, p. 111. Ed. 3.

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those practitioners who consider the Puerperal Fever as a modification of the common infectious or jail fever, should on the same grounds believe it to be infectious. But if the disease were of of this nature, I see no reason why it should not frequently communicate a putrid fever to persons not in the puerperal state, which I have never known to happen.* The arguments that have been urged to prove that the disease is not a fever of that description, if they have any weight, will equally shew, that it is not infectious; or, if so, that the infection is of a different kind.

No one supposes the sporadic Puerperal Fever to be contagious;† and in proportion as the dis-

* I am aware that there are instances in which fevers have been attributed to infection taken from women labouring under the Puerperal Fever. In the Royal Infirmary at Edinburgh, two of the attendants on the puerperal women are said to have been seized with the common synochus. But the paucity of such instances seems more to confirm, than the exception to invalidate my argument.

† When this sentence was written, I had not seen the work of Dr. Armstrong, who says, "The peritonitic fever, "when completely formed, is in kind, though not in degree, "as contagious as the epidemic." Facts and Observations &c. p. 54.

ease becomes epidemical, it is the more difficult to judge of its nature in this respect; for as epidemic diseases are in some measure connected with the state of the atmosphere, all are alike exposed to the predisposing cause at least.

The opposite opinions of practical men, on this subject, would lead us to believe that the Puerperal Fever is not always contagious; and that, when it is so, it has that property in very different degrees.

Dr. Hulme says, "The puerperal fever is "not an infectious disease, any more than the "iliac passion, a pleurisy, a *nephritis*, or an in-"flammation in any other part of the body.*" And other authors speak of this point with great doubt.

Dr. Gordon, on the contrary, represents the disease as highly infectious, and informs us, that the channels by which it was propagated, were very evident.

It has been my aim, in this Treatise, to advance nothing from theory; or which was not clearly deducible from facts and actual experience: and having known many circumstances from which opposite conclusions might be drawn

* Treatise on the Puerperal Fever, p. 164.

on the present question, I am unable to form a decided opinion upon it. If the Puerperal Fever of Leeds was infectious, which by many it was thought to be, it was so in a very inferior degree to that of Aberdeen; for I have known instances of free communication, by the intervention of others, between women in labour or child-bed, and those affected with the disease, without any bad consequence. And on the contrary, in many cases of Puerperal Fever, no channel whatever was discoverable, whereby the disease could have been conveyed.

It was my custom, however, to use such precautions in my attendance on patients, as to render it impossible for me to convey infection to them; and if any one would take the same trouble, he might practise safely, were the disease as infectious as DR. GORDON represents it to be. It was an invariable rule with me never to attend a patient in child-bed, in any article of clothing which had been in the presence of one affected with the Puerperal Fever; nor without washing repeatedly such parts of my person as could have been exposed to infection. This trouble I took for the satisfaction of my own mind, and the safety of my patients, though not

convinced that it was necessary; but in so important a matter, I wished for perfect security under any supposition.

If there be any circumstances under which the method of cure now recommended, may prove unsuccessful, it will be thought most likely to happen, when the disease shall prevail as an epidemic in hospitals. I have had no experience of it under such circumstances; and therefore it would be presuming too much, to speak on this subject with confidence. It must remain for the decision of future observation, whether the treatment which has succeeded so well in private practice, will not be equally suitable and efficacious in that of hospitals. The experience of DR. LEAKE, however, so far as it goes, tends to prove the affirmative. But it is not asking too much, that the trial should be made, unless any other plan promised greater, or at least equal, success. And let not the fear of bleeding which has hitherto prevailed, prevent its use in full quantity, and in proper time; for on these two points, its efficacy entirely depends.

It will scarcely be denied, that small has been the success of all other means, unless we except the plan of treatment by repeated emetics, as

recommended by M. DOULCET. The efficacy attributed to this plan in the Hotel-Dieu, is certainly extraordinary; and I am at a loss to assign a sufficient cause, why it should be condemned by almost every author who has since written on the subject.

Perhaps it has never been fairly put to the test in this country; at least I am ignorant that this has been the case. For those authors who condemn the practice, do not inform us under what circumstances, or to what extent they have tried it; and the only one* who has written in its favour, though his treatment was attended with "uninterrupted success," had probably seen little of the disease in its epidemic form, since his treatise was published soon after the commencement of the epidemic described by DR. CLARKE. And this circumstance is important in estimating the value of any remedy; for the sporadic disease may be cured by means quite inadequate to the cure of the epidemic.

It is highly probable, however, that the success of this method of cure, as practised in the Hotel-Dieu, has been unintentionally overrated.

* DR. WALSH.

For, since its efficacy "consists wholly in its "early application, namely, in the very moment "when the disease first commences,*" it must necessarily happen, that the remedy would be administered in many cases of febrile affection, which would not have terminated in the Puerperal Fever. And thus the plan of treatment would obtain a degree of credit, which it did not deserve.

But should we grant all the efficacy which is claimed for this plan, yet the circumstance that it must be adopted at "the first moment of attack," would confine its application, in a great measure, to the practice of hospitals. It is needless to say, how impossible it is, in private practice, to ensure this advantage. For, as I have already observed, notwithstanding the strictest injunctions left with my patients, or their attendants, during the prevalence of the late Epidemic, to give me the earliest information of the appearance of those symptoms which usually characterized the disease, my directions were seldom complied with; so that I had rarely

* Report of M. DOULCET'S Memoir, translated by DR. WHITEHEAD, p. 12.

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the opportunity of seeing the patient, till the disease had subsisted some hours.

The method of cure, therefore, by bleeding and purging, has a decided advantage over that by emetics, even on the supposition that they are equal in all other respects, except the period of the disease at which they will respectively prove efficacious.

Of the latter I have no experience, and can therefore say nothing: the former I can recommend, even with greater confidence than if it had been employed with invariable success from the commencement of the Epidemic. For the want of success prior to the combined use of these remedies, served more clearly to evince the nature and mortality of the disease, to demonstrate the inefficacy of other methods of cure, and therefore more fully to establish the superiority of that which was finally adopted.

APPENDIX.

I should feel reluctant to increase the size of this Treatise, by multiplying the number of cases, did I not hope, that those which have lately come under my notice*, possessed sufficient variety to give them some interest, and to throw some additional light on the subject in question. At least it may tend to confirm the practice already inculcated, when we find the same treatment attended with equal success, at some distance of time, and in various cases and circumstances.

CASE XXVII.

October 13th 1814, I was requested to visit the wife of J. B. aged 27, who had been ten days labouring under the Puerperal Fever. The

* See Note, p. 169.

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surgeon at whose request I attended, favoured me with the following account of her case.

She was delivered by a midwife of her 5th child, in the morning of the 1st of October; and was attacked, in the morning of the 3rd, with a violent pain and throbbing in her head, accompanied with thirst, an increase of after-pain, and a pulse at 120. As the chief complaint seemed to reside in the head, the state of the abdomen was not examined. Three table spoonfuls of the cathartic solution were directed to be taken every two hours.

4th. The contents of the bowels had been freely evacuated, and the after-pains were diminished; but the pain in the head continued violent, and the frequency of the pulse was somewhat increased. Ordered a saline mixture to be taken in a state of effervescence.

5th. She was much worse; the head-ach more violent, and the abdomen, which was now examined for the first time, considerably tumefied and very tender when touched. Pulse at 140 or upwards. She had had no evacuation on the preceding day. Somewhat more than twenty ounces of blood were drawn from the arm, and a purgative mixture prescribed.

Evening. The mixture had operated freely, and the patient was somewhat relieved; but she still complained much of her head, and the soreness of the abdomen was little abated. The bleeding was repeated to the quantity of sixteen ounces. She seemed greatly relieved by the evacuation, and the frequency of the pulse was considerably diminished. The saline mixture repeated.

6th. The symptoms having become more unfavourable during the night, the venesection was a third time repeated; but it did not procure that sensible relief, which had been experienced on the preceding evening.

Noon. The pain of the abdomen had abated, but the pulse had become more frequent. An evacuation by stool had taken place every three or four hours.

℞. Antimon. tartar. gr. $\frac{1}{2}$
Hydrarg. submur.
Pulv. digital. $\overline{aa}$ gr. j.
Confec. ros. canin. q. s. M.
fiat pilula alternis horis sumenda.

7th. Somewhat easier. Pulse 150. No

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stool during the night. The purging mixture repeated. The pills were regularly continued for two days.

8th, 9th, and 10th. She gradually amended, and the frequency of the pulse decreased, the bowels being kept in a lax state, and the saline mixture continued every three hours.

11th, and 12th. The pulse became more frequent, and the patient appeared more sunk. The abdomen remained much tumefied, but manifested little sensibility on pressure. She still complained chiefly of the pain in her head.

13th. I accompanied the surgeon, in the evening, to visit this patient. She appeared very low, and her pulse was frequent and feeble. Her tongue was dry and brown, and her teeth were encrusted with sordes. Her head was yet affected with pain, but she made little complaint of her body. It was, however, enlarged, and though not very tender, was not insensible to pressure. The symptoms of active inflammation having given place to those of a typhoid character, the purgatives had been omitted, and the evacuations had consequently decreased. I recommended such a repetition of the purgative as might procure an evacuation about once in four

hours, and a continuation of the saline mixture in a state of effervescence. The strength of the patient was supported by a light but nutritious diet; such as broth, jellies, chocolate, and milk.

This plan was regularly pursued for four days, and the patient was then convalescent. She gradually, though slowly, recovered her strength, and is now in perfect health.

This Case much resembles the 22d, and contains various points of instruction, which may illustrate what has before been advanced. It evinces the necessity of circumspection, when after-pains are accompanied with a frequent pulse, and other symptoms of fever.* It affords an additional proof, that there are cases in which bleeding may safely be practised at a later period than some would advise.† It shews too, that bleeding when too long deferred, will not, though copious, immediately subdue the disease.

With reference to the Epidemic which I have described, though strenuously insisting on the importance of bleeding *early*, yet I have ventur-

* See Note, p. 175.

† "I have never dared to recommend it when the disease "had continued longer than thirty hours." ARMSTRONG's Facts and Observations &c. p. 76.

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ed to recommend the use of the lancet, till there is reason to believe that effusion, suppuration, or gangrene has taken place. For the duration of the first stage was usually short, and the last stage so quickly succeeded, as to leave no intermediate space, indicative of a distinct treatment. But if either bleeding or purging has been too long delayed, or too sparingly used, and the disease be arrested, but imperfectly overcome, the first stage may be protracted beyond the limits of active inflammation. This state, when it happens, might more properly be termed *the middle stage* of Puerperal Fever; in which bleeding will seldom, if ever, be proper, as the symptoms have often a typhoid tendency: but purging is still the appropriate remedy. The middle stage may also occur, when bleeding has been entirely neglected, if the progress of the disease be not very rapid.

No general directions for the treatment of any disease, can be so exactly defined, as not to leave much to the judgment and discretion of the practitioner; for all rules may have their exceptions. Thus I have found bleeding admissible in the Puerperal Fever, when the disease had continued forty-eight hours, when the abdomen was con-

siderably tumefied, or when the pulse was near 160; each of which circumstances might be considered, and often justly considered, as an objection to that remedy in the epidemic disease. I conceive it to be a principal advantage of cases, faithfully related, that they enable the reader to judge more correctly of the application of the method of treatment proposed, and of the circumstances in which a deviation from it may be required or admitted.

CASE XXVIII.

On Thursday evening, November 17th 1814, Mr. ——— requested my attendance, in consultation, on a patient who had symptoms of an incipient Puerperal Fever under very unfavourable circumstances. She was a woman of a delicate frame and constitution, thirty-three years of age, and lying-in of her sixth child. She had been brought to bed on the preceding Tuesday, at ten o'clock in the evening. A sudden alteration having taken place in her labour, the child was born before the arrival of the surgeon; and the placenta was too hastily extracted by a

female attendant. A very copious effusion of blood immediately followed, which occasioned repeated faintings; so that for three hours, the life of the patient seemed to be in great and immediate danger. By the application to the loins and abdomen of cloths wet with cold water, and the frequent exhibition of brandy, the hemorrhage was restrained, and the strength of the patient recruited.* She remained free from all complaint but that of weakness, till eleven o'clock in the morning of Thursday; when, her breasts being uneasy from distention, she attempted to suckle her child, During this attempt she was seized with pain in the hypogastric region, towards the left groin. Mr. ——— visited her in the evening; and finding that she had a continued pain in the abdomen, with a pulse at 140, he desired a consultation on the case, which was rendered the more dangerous and perplexing by the excessive discharge after labour.

* The surgeon judged it proper also, as I have since learnt, to plug the vagina with soft linen. So sudden and profuse, indeed, was the discharge, that, had not some respite been obtained by this means for the administration of cordials, it would, in all probability, very soon have proved fatal.

We saw her between nine and ten o'clock. The face and lips were pale; the countenance ghastly, and expressive of anxiety; the skin cool; the tongue rather white, but moist and not furred; the pulse above 150, but not weak. She complained of pain in her head, accompanied with ringing of the ears, and with giddiness on the slightest motion. She lay upon her back, and could not without much pain turn upon either side. The pain, which had now removed to the right groin, was constant, but aggravated by fits. The abdomen shewed great sensibility in the hypogastric region. The breathing was frequent. She found relief by drawing up her legs so as to relax the abdominal muscles. The lochia had continued unaltered during the day; but were now somewhat diminished. The breasts were flaccid. Several times she had experienced a sense of nausea, and once she had vomited. The disease had not been ushered in by a rigor, but some degree of chilliness had been perceived about six o'clock in the evening.

The symptoms precluded all doubt as to the nature of the complaint; and such was my persuasion of the necessity of large evacuations for its cure, in which MR. ——— concurred, that,

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notwithstanding the unfavourable state of the patient, we took away from the arm twenty-four ounces of blood. The evacuation gave immediate relief, and the countenance was evidently improved. The pulse was reduced to 114, and not diminished in strength. The blood was quite florid, and so thin, that it appeared, while flowing, like water tinged with blood. The bowels had not been moved since the delivery; but soon after the bleeding, a small quantity of liquid fæces was discharged. She still felt a strong motion to stool, and having usually a propensity to diarrhœa, her friends were very unwilling that she should take any purgative. But we could not place much confidence in these circumstances, and therefore administered a bolus with half a dram of jalap and five grains of calomel; and directed two drams of magnes. sulphas to be given every two hours.

18th. *Seven, a. m.* She had passed a comfortable night, having been free from pain in the abdomen, and having frequently slept. The pain of the head had also much abated. The uterus was now easily distinguishable (which had not been the case on the preceding evening), and was endued with great sensibility. The

tongue was dry in the middle. Pulse about 120, but rather variable. The blood contained a large proportion of serum; the crassamentum had no crust on its surface, but its texture was firm. Two large evacuations, in which scybala appeared, had been procured by the bolus, but no other medicine had been taken. We gave two drams of magnes. sulphas, and ordered a stronger purgative to be given in two hours afterwards.

Eight, p. m. Four evacuations had taken place in the course of the day, which were feculent, but liquid, and not large in quantity. The soreness of the abdomen was somewhat diminished; the tongue was clean and moist; the pulse still at 120. She complained much of a sense of beating in her head and of noise in her ears; and, though she had a disposition to sleep, was afraid to indulge it, because she awoke in a state of alarm and agitation. Ordered the sulphate of magnesia to be repeated whenever she should have been three hours without an evacuation.

19th. The sulphate of magnesia was continued at intervals, but not quite so regularly as we could have wished; yet so as to procure four evacuations in twenty-four hours. As the abdo-

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men remained free from pain, the enlargement of the uterus was subsiding, and the pulse was little more than 100, a table-spoonful of wine, diluted with gruel or water, was allowed to be given occasionally, on account of the distressing sensations in the head, which we now attributed more to the loss of blood than to fever.

20th. She had enjoyed some comfortable repose, and the sensations of her head were alleviated.

Evening. We found the abdomen distended, but without any increase of soreness; and as the bowels had not been moved during the greater part of the day, we supposed the enlargement to arise from the detention of flatus. The injection of a clyster, and a repetition of the magnes. sulphas, were advised. A cordial mixture* was also prescribed on account of the throbbing and noise in the head; which had become more troublesome.

* R. Spt. ammon. comp.
—— lavand. comp. aa ℥ij.
Aq. menth. pip. ℥v.
Syrupi ℥ss. M.
Capiat coch. j vel ij ampl. p. r. n.

21st. Two evacuations had been obtained without the assistance of the injection, and the fulness of the abdomen had nearly subsided. In the evening it was entirely gone. Pulse 140.

22d. She had got much refreshing sleep, and the morbid sensations in her head were, in a great measure, removed. The abdomen was quite free from complaint.

From this time she had no further symptom of inflammation or fever. A proper attention was paid to the state of her bowels, and such diet and medicine prescribed as might tend to re-establish her health.

There are no cases of Puerperal Fever in which it is more important to establish the practice of bleeding, than those which occur after excessive uterine discharges; for in none has its propriety been so much disputed, nor with greater appearance of reason. I have related several of this description, of which the last is not the least remarkable, the previous state of the patient being unfriendly to large evacuations, and the hemorrhage after labour as copious as could well be sustained consistently with the preservation of life. If then venesection be found, in such cases, not only a safe, but an

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effectual remedy, its necessity will be the less disputed in other and more favourable circumstances.

I may here notice a distinction which Dr. Armstrong suggests, respecting the occasions when Puerperal Fever is most likely to succeed uterine hemorrhage. He says, "Mr. Ferguson, "of Bishopwearmouth, who has been in a most "extensive practice of midwifery, for nearly "forty years, has hardly ever seen puerperal "fever succeed uterine effusions merely arising "from a defect of contractility in the uterus, "but has often seen it follow those hæmorrhages "which arose from an injury sustained by that "organ. This is an important fact, and perhaps "may, in part, explain the existing discrepan-"cies of authors, some of whom assert that "floodings occasion, and others that they pre-"vent, the disease.*" The fact here stated does not accord with my experience; for in all my cases of this kind, six in number, the Fever occurred after floodings occasioned by a defect of contractility in the uterus.†

If there was any exception to this statement,

* Facts and Observations &c. p. 38.

† See Cases ix. x. xii. xvii. xix. and xxviii.

it was the case of abortion at six months, mentioned in the note, p. 27. I see no reason why the 28th Case should be excepted; for though the separation of the placenta was too hasty, it could not properly be called a "forcible separation."

I have before mentioned an observation of DR. DENMAN, that the Puerperal Fever may be formed before delivery; * and when any tendency of this kind is suspected, the case will require more than ordinary vigilance in the medical attendant. For if the period which usually elapses before a regular attack of the disease, be neglected, the most vigorous efforts of art may not have power to retrieve the effects of this delay. But, should the life of the patient be saved, the least to be expected, is a protracted, if not a complicated disorder; which, I believe, will rarely be seen, but through previous neglect. Such was the following Case; and though its peculiar circumstances led me to

* See Notes, p. 26. Also Case vii. p. 63.

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deviate, in some respects, from my ordinary method of cure; yet an account of its progress and treatment may not be the less useful, as exhibiting some variety in the disease.

CASE XXIX.

The wife of M. R. aged 28, was brought to bed of her third child, on the 3rd of December, 1814. Her former labours had been lingering, and this continued from Wednesday morning until Saturday evening. I had seen her during labour in consultation with Mr.————, and judged from the acute, yet ineffectual nature of her pains, attended with a frequent pulse, that there was some irregular contraction of the uterus, probably connected with an inflammatory diathesis. I therefore advised that some blood should be drawn from the arm, if, after the injection of a clyster and a sufficient trial of opiates, the labour should not become more natural. It terminated favourably, however, without recourse being had to blood-letting.

I heard no more of the patient until Monday morning, when, accidentally meeting Mr. ————, he informed me that she had much pain in the abdomen, with a very frequent pulse,

and desired me to visit her. He had taken away some blood, and was intending to send her the cathartic solution. Though she had just had two loose evacuations, I advised the addition of a scruple of jalap and five grains of calomel to the first dose. I called upon her about eleven o'clock, when I received the following account of her complaint.

From the termination of her labour, the abdomen had remained sore; and she had never been quite free from pain, though she had made no complaint when the surgeon visited her on Sunday. In the afternoon of that day, she had been seized with a head-ach; and about six in the evening, on putting her child to the breast, the pain of the abdomen had suddenly and considerably increased. Soon after this increase of pain she had experienced a slight shivering fit, which had continued about a quarter of an hour, and was followed by a great degree of heat and perspiration. The pain of the head and abdomen had been severe throughout the night; and the latter without any remission. At five o'clock on Monday morning, she had been attacked with a second rigor, much more violent than the former, which had continued half an hour, and had

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terminated in the same manner. I saw her about eleven o'clock: the heat was not great at that time; but she complained of much thirst. The tongue was rather white, but moist and not furred. The head-ach was severe, and accompanied with a sense of throbbing. The uterus was distinctly to be felt as high as the navel, and showed exquisite tenderness on the slightest touch, while the rest of the abdomen was little affected by pressure. She could lie upon her side, though a supine position was most easy; but every change of posture was attended with much pain, and effected with difficulty. A troublesome cough added greatly to her distress. The lochia were nearly suppressed. The urine felt hot, but was discharged without pain. The blood drawn from the arm, which I found to be nearly twenty ounces, had afforded little relief. The pulse was at 132, and not small or weak. I tied up the arm again, and took a second quantity of blood, making in the whole full thirty-eight ounces. I desired that the solution might be repeated every hour, though she had had a third evacuation before taking the bolus.

Half past Five, p. m. The purgatives had produced six evacuations, not indeed very copi-

ous, but of a more feculent kind than before; yet, though the pain was somewhat alleviated, the other symptoms had rather increased. The soreness of the hypogastrium was no less in degree, and extended now to the whole of the abdomen, which was more generally tumefied, so that the uterus could not easily be distinguished. The pain in the head was nearly the same. The lochia had entirely ceased, and the breasts were quite flaccid and small. Pulse upwards of 140, but not weak. The patient had fainted on being raised up after the second bleeding. We opened the vein a third time, and took away fifteen ounces of blood. The solution was directed to be continued.

Ten, p. m. She had had five more evacuations since our last visit; but I was disappointed to find that there was no amendment in the symptoms. The stools were more mucous, and less feculent. Pulse at 138, not quite regular, and weaker than before. On this account, though the pain was little abated, I did not venture to take away more blood. There was a circumscribed crimson flush on the left cheek. The solution was ordered to be continued so as to procure a stool about once in two hours.

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6th, *Half past Seven, a. m.* She had had some short slumbers during the night. Nine evacuations had taken place since ten, *p. m.*, which contained but little fæces. The pain had begun to intermit, and to come on by fits like after-pain. The soreness and tumefaction of the abdomen were diminished, but the former was still considerable. She could turn herself in bed with more ease. The lochia had returned in a very small quantity, and of a pale colour. The head was much better, and was now affected more with lightness than pain. Thirst abated. Tongue moist, but rather white. Pulse 120. During the night she had once or twice felt a disposition to vomit, but without any retching. Besides the purging bolus, she had taken two ounces and three drams of magnes. sulphas. Ordered to continue the latter.

Half past Five, p. m. She had frequently slept a little during the day, and was in all respects relieved. The pain in the abdomen, which returned about thrice in an hour, was less severe, and its intermissions were nearly complete. The fulness and sensibility of the abdomen had also continued to abate. The

head was not quite easy, but the pain was now like a common head-ach. Thirst much diminished. Pulse at 110, more full, and quite regular. She had had nine more evacuations, which were of a dark greenish colour, and contained no fæces; but consisted chiefly of a ragged mucus. Ordered an injection of broth or gruel, and such a repetition of the solution as might procure an evacuation about once in two or three hours.

7th. *Half past Nine, a. m.* She had not slept much, though at times disposed to sleep, having been disturbed by the crying of the child. The pain both in her head and body had somewhat increased. The uterus still reached to the navel, and was more easily distinguished than on the preceding day; but whether this was owing to an actual increase in its bulk, or to a diminution of the general distention, I could not certainly determine. She had perspired in the night without any previous chilliness. Pulse 110. She had not been able to retain the injection. Had had nine evacuations which were slightly feculent. Ordered a repetition of the injection, a fomentation of warm water to the abdomen, and an addition of a grain of antim. tartar. to six ounces of the solution, of

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which a fourth part to be given every two hours until vomiting should be excited.

Half past Five, p. m. The fomentation had afforded great relief. A third of the solution had been given at once, which very soon produced vomiting. This also seemed to be attended with a beneficial effect. Both the head and abdomen were more easy than at any time since the attack. The uterus, however, was little diminished in size, though the rest of the abdomen seemed free from disease. Pulse 124. Tongue quite clean. She had had five or six stools, which contained some currants taken in the morning, though not much feculent matter. A second dose of the solution had been taken an hour without effect. Ordered the remainder to be given after another hour, with the intention of producing vomiting again ; and the fomentation to be repeated. As the stools had been very numerous for three successive days, and there could be little doubt that the contents of the intestinal canal had been completely evacuated, I did not wish the solution to be continued during the night ; but (though contrary to my usual practice) thought it proper to direct a small injection with forty drops of tinct. opii.

8th. *Ten, a. m.* The anodyne clyster had been retained three hours, during the whole of which time she had enjoyed a comfortable sleep; she had also slept much during the remainder of the night. She had had four evacuations more feculent than the former. The pain in the head and body was still more abated, though in both it returned by fits. The uterus was somewhat reduced in bulk, but was not free from soreness. The urine (the first which could be kept separate from the stools) had deposited a brownish sediment. There had been no more appearance of lochia since the slight one before noticed, nor was there any tendency to secretion in the breasts. The tongue remained quite clean. Pulse 112. Ordered the solution with antim. tartar. to be repeated once in three hours. A small quantity of light pudding was allowed.

Half past Six, p. m. She awoke from a short sleep, about one o'clock, in a state of perspiration, and since that time the pain had been worse both in her head and body; that in the latter being aggravated three or four times in an hour. Her face was flushed. Pulse 126. By a mistake of the nurse, one fourth of the solution had been given at two doses, instead of a fourth at

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each dose. She had had four small loose stools of a good kind and natural colour. We gave her a full dose of the solution, and ordered it to be repeated at 9 o'clock; in the mean time to have the fomentation applied, and at ten to repeat the anodyne injection.

9th. *Ten, a. m.* She had passed a comfortable night, with much sleep. She had retained the injection, having had no motion from the time of our visit till six o'clock this morning. Between that time and ten, she had had three copious feculent stools. She was more easy than at any previous time. The uterus still did not appear to be reduced much in size, but was less tender; and motion of the body excited much less uneasiness. Pulse 114. Ordered to take a dose of the solution with antim. tartar. whenever she had been three hours without an evacuation.

Half past Five, p. m. She had taken the solution several times, and had parted with three more stools of a natural appearance, but not so copious as those in the morning. She had experienced only one or two slight fits of pain, which did not continue more than a minute. The uterus nearly the same in bulk, but far less impatient of pressure. Countenance good. No

thirst. Pulse 120. The solution to be continued as before. The anodyne clyster, and the fomentation to be repeated.

10th. She had had three evacuations last night between the time of our visit and ten o'clock. The injection was then given, and she slept the greater part of the night, having had no motion till after six o'clock this morning. She awoke, as was usual, in a state of gentle perspiration. A lateritious sediment was observable in the urine. Pulse 110. She remained free from pain, No variation in the other symptoms. To continue the same plan.

11th. I found her much worse. The head-ach, and some degree of pain in the abdomen had returned in the course of the preceding day. About six o'clock in the evening, after getting up to have her bed made, she was seized with a violent shivering fit, which continued, though with some remissions, for an hour. A great degree of heat followed the rigor, and afterwards a very profuse perspiration. Her head-ach increased to a violent degree, accompanied with a sense of beating and noise; and continued in this state throughout the night. The sensibility of the abdomen was much diminished. She was

somewhat flushed in the face, the tongue was furred, and the pulse upwards of 140. She had had nine feculent evacuations during the last twenty-four hours. The cathartic solution, with half a grain of antim. tartar. in each dose, was ordered to be given every hour till vomiting should be excited. The opiate clyster to be omitted.

Evening. The second dose of the solution had operated freely by vomiting; but the pain in the head, though somewhat abated, was still considerable. Three or four evacuations had taken place since morning. Pulse 140. Ordered the hair to be cut off, and the head, forehead, and temples to be frequently washed with cold vinegar and water—a blister to be applied to the nape of the neck—and a saline mixture to be given, in a state of effervescence, every two hours, except when it should be necessary to give a dose of the solution.

12th. She had found sensible relief from the cold washing, and the head remained much easier. She had felt disposed to sleep, but the blister seemed to prevent it. Had had about nine stools. Pulse 122. Abdomen easy.

Evening. Continued to improve. Had had

two evacuations, which were almost black, but somewhat resembling the appearance produced by taking chalybeates. Pulse 110.

13th. She had passed a good night, and was very comfortable in her feelings. She was quite free from pain both in her head and body; except that in sitting up she experienced some degree of soreness in the right hypogastrium, where the pain had been chiefly felt. The urine was high coloured, and clear. Tongue rather cleaner. Skin moist. Pulse varied from 110 to 118. She had had four more dark-coloured evacuations, which appeared to be a mixture of pus and blood with feculent matter. They had a strong and peculiar fetor, such as I have never perceived but from the contents of some abscesses. Ordered to continue the saline mixture, and occasionally, the solution.

14th. Little variation in the symptoms. The uterus was so far diminished as to reach only half way between the pubes and navel. Tongue growing cleaner. Pulse 112. She had had five evacuations of the same kind, though not quite so dark-coloured, in the last twenty-four hours. The medicines were directed to be continued.

Appendix.
Case 29.

Evening. I was desired to visit her on account of a fresh accession of fever. About one o'clock she had been seized with a shivering fit, which, though not so violent as the last, continued as long. It was succeeded, as before, by great heat, profuse perspiration, and violent pain in the head, accompanied with a sense of beating and noise. When I saw her, between six and seven *p. m.*, the heat and perspiration had nearly gone off, and the pain in the head was less violent. No pain in the abdomen. Pulse 150. She had had three loose stools, not so dark as the last, but still fetid. Ordered an emetic with a scruple of ipecacuanha and a grain of antim. tartar.

15th. The emetic had operated well, and the patient had felt much relieved by it; but the pain in the head was not quite removed. Tongue cleaner. Pulse 128. Five evacuations, more natural in appearance. Ordered to omit the opening medicine, and to continue the saline.

16th. *Evening.* She was quite easy both in her head and body, and her feelings comfortable. Tongue quite clean. Pulse 108. A slight appearance of the lochia had taken place to day—only two small evacuations since yesterday

morning. The medicine to be continued with longer intervals.

17th. The evacuations were now more solid and of a natural appearance.

From this time she had no further complaint. *

Though the recital of this Case may seem tedious, it will not, perhaps, be thought unimportant, as illustrating the efficacy of the treatment proposed in this work, when the disease had advanced to the verge of a state in which it would have been incurable. It strikingly shews, that, when bleeding has been carried to the utmost limit of prudence, evacuations by purging may still be continued to a considerable extent. I have not experience sufficient in cases of "Puerperal Fever with Diarrhœa", such as described by Dr. Channing, † to enable me

* It is observable in the two preceding Cases, that the first attack of severe pain in the abdomen, took place on suckling the child. This circumstance happened so frequently, that it became our rule, while the epidemic was rife, to forbid the drawing of the breasts till the usual period of the attack had passed over, or till the painful distention of the breasts required some degree of depletion.

† See London Med. & Phys. Journal for Dec. 1814, p. 461.

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to decide on the justice of that writer's remarks, as to the propriety of restraining an excessive diarrhœa; yet I cannot but doubt, whether, even in his successful case, the purging would not sooner have been moderated by laxatives, than by opiates and astringents: and also, whether the cure might not be attributed to the copious evacuations, the blister and emetics, rather than to the medicines which were given to restrain the diarrhœa. He alludes to a case of "puerperal fever with diarrhœa," related by MR. WHITE, and adds, "With this exception, scarce "an author has been met with, who has given us "cases, in which this was a leading and very "pressing symptom." But, though he quotes DR. GORDON'S treatise, he does not notice the remarkable case of JANET WIER, in which a diarrhœa excited by art, was carried on by nature to a successful issue, in spite of all endeavours to restrain it; "for a diarrhœa continued without "intermission for seventeen successive days, "and was extremely violent, being at the rate "of twenty or thirty stools every day." And even then "it did not entirely cease; for it con-"tinued, though in moderation, for the space of "six weeks; and having completely carried off

" the disease, it then ceased spontaneously *" I would further observe, that in the Case I have just related, a spontaneous diarrhœa had commenced; for three evacuations had taken place in rapid succession, before the exhibition of any purgative. It must, however, be submitted to the test of future observation, whether or not "Puerperal Fever with Diarrhœa" requires a treatment essentially different from other forms of the disease.

Influenced by frequent experience of the inutility of opiates in the Puerperal Fever, I have latterly discarded them from my practice. In the last Case, however, I thought it proper to depart from my general rule, and the deviation was attended with apparent advantage. But let it be observed, that a diarrhœa had previously subsisted for three days, nearly at the rate, on an average, of sixteen evacuations in a day; and that the opiate was administered in small doses, and in the form of injection, so that it did not long suppress the alvine excretions.

The unusual length of time during which the

* GORDON on the Puerperal Fever, p. 89, 90.

bulk of the uterus remained undiminished, and the subsequent appearance of a puriform discharge in the stools, were indications of a considerable progress having been made by the disease, before its course was arrested. From what part the matter had issued, it is impossible to say: but it may not be irrelevant to remark, that the enlargement of the uterus continued with little abatement, after the peritonæum appeared free from inflammation; and that it quickly diminished in size soon after the commencement of the purulent discharge.

The good effect of vomiting, unintentionally excited in one of the worst of my own cases, * and the recommendation of it by MR. GREGSON, † induced me to make repeated trials of it in an advanced stage of this Case, when the fever returned after very copious evacuations by bleeding and purging; and I had reason to be satisfied of its utility under those circumstances.

* See Case xx. p. 126.

† See ARMSTRONG's Facts and Observations, &c. p. 68 & 105.

CASE XXX.

This was a well marked Case of the disease, and the last which I have seen. As there was nothing remarkable in its progress, a brief account of it may suffice.

Mrs. B. a young lady in good health, was brought to bed of her second child, after a short labour, on the 27th of December, 1814. The attack of the disease commenced, within twelve hours after delivery, with a slight rigor, which was succeeded by most of the usual symptoms—increased heat, pain and throbbing in the head* (without vertigo), severe remittent pain and extreme soreness in the abdomen, thirst, pulse and respiration very frequent, with an inability

* The symptom of pain in the head was either more constant, and to a greater degree, in the cases which I have lately seen, than at the commencement of the Epidemic; or my attention to it was less excited at that time. Perhaps I may have spoken of it rather too slightly in the enumeration of symptoms (page 22); though, no doubt, all morbid affection of the head has sometimes been wanting in cases otherwise severe.

Appendix. Case 30.

of lying upon the side. Although the patient resided at no great distance from my house, I was not informed of her illness until twenty hours had elapsed after its commencement, the pain in the abdomen having been mistaken for the common after-pain. I took away twenty-four ounces of blood from the arm, and prescribed a draught with half a dram of jalap and six grains of calomel; I also directed two drams of the sulphate of magnesia to be given every two hours.

I first saw the patient at six o'clock in the evening, and repeated my visit at ten. The purgatives were then beginning to operate, and the head-ach was greatly abated; but as the pain of the abdomen was little diminished, I was afraid of incurring the risk which might attend the omission of bleeding again until morning, and therefore I took from the same orifice an additional quantity of eighteen ounces. During the night, an evacuation by stool, accompanied with vomiting, afforded great relief; and the patient slept nearly five hours afterwards without intermission.

On the following morning, the purgatives having procured five evacuations, I found the

symptoms greatly alleviated; and before the close of the day all appearance of danger was over.

Since the limits of bleeding in the Puerperal Fever, as I have before attempted to show, cannot be exactly defined; it becomes desirable to ascertain whether a deficiency, or an excess, of that evacuation is more compatible with the safety of the patient, as such knowledge must have an important influence in practice. A slight attention to many of the preceding Cases may satisfy the reader, that far greater danger will commonly ensue from too small than too copious bleeding. Had I been called to the last patient more early in the day, so that time had been allowed to observe the effect of the purgatives, a second bleeding might, perhaps, have been spared; but, under existing circumstances, I had no hesitation what course to pursue.

I have employed blood-letting, in this disease, to a greater extent than any other practitioner with whose writings I am acquainted; and have hazarded the opinion, that the quantity of blood is scarcely to be limited but by "the removal, or considerable diminution of the pain"; but let

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it be remembered, as a necessary appendage to this opinion, that the period for bleeding is confined to an *early*, though not a very definite stage of the disease.

FINIS.

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